HCD-GZR7D/GZR8D/ GZR9D

SERVICE MANUAL

Ver. 1.0 2008.05

E Model
HCD-GZR7D/GZR8D/GZR9D
Australian Model
HCD-GZR9D

Photo: HCD-GZR8D

- HCD-GZR7D/GZR8D/GZR9D are the tuner, deck, DVD and amplifier section in MHC-GZR7D/GZR8D/GZR9D.

DVD Section	Model Name Using Similar Mechanism	HCD-GNZ777D/GNZ888D
	DVD Mechanism Type	CDM74HF-DVBU101//C
	Optical Pick-up Name	KHM-313CAB/C2RP
Tape Deck Section	Model Name Using Similar Machanism	HCD-GNZ777D/GNZ888D

SPECIFICATIONS

Amplifier Section

The following measured at AC 120, 220, 240 V, 50/60 Hz

MHC-GZR9D

Power output (rated): 100 W + 100 W (6 Ω at 1 kHz, 1% THD)
RMS output power (reference)
Front speaker: 180 W + 180 W (per channel at 6 Ω, 1 kHz, 10% THD)
Center speaker: 60 W (6 Ω at 1 kHz, 10% THD)
Surround speaker: 60 W + 60 W (per channel at 6 Ω, 1 kHz, 10% THD)
Subwoofer: 180 W (6 Ω at 80 Hz, 10% THD)

MHC-GZR8D

Power output (rated): 100 W + 100 W (6 Ω at 1 kHz, 1% THD)
RMS output power (reference)
Front speaker: 180 W + 180 W (per channel at 6 Ω, 1 kHz, 10% THD)
Center speaker: 60 W (6 Ω at 1 kHz, 10% THD)
Surround speaker: 60 W + 60 W (per channel at 6 Ω, 1 kHz, 10% THD)

MHC-GZR7D

Power output (rated): 100 W + 100 W (6 Ω at 1 kHz, 1% THD)
RMS output power (reference):
180 W+ 180 W (per channel at 6 Ω, 1 kHz, 10% THD)

Inputs

VIDEO/SAT VIDEO IN (phono jack):
1 Vp-p, 75 ohms
VIDEO/SAT AUDIO IN L/R (phono jacks):
voltage 250/450 mV, impedance 47 kilohms
MIC 1/MIC 2 (phone jacks):
sensitivity 1 mV, impedance 10 kilohms

– Continued on next page –

DVD DECK RECEIVER

9-889-156-01
2008E04-1
© 2008.05
Sony Corporation
Audio Business Group
Published by Sony Techno Create Corporation

SONY

Outputs

VIDEO OUT (phono jack):
max. output level 1 Vp-p, unbalanced, Sync negative, load impedance 75 ohms
S VIDEO OUT (4-pin/mini-DIN jack):
Y: 1 Vp-p, unbalanced, Sync negative,
C: 0.286 Vp-p, load impedance 75 ohms
COMPONENT VIDEO OUT:
Y: 1 Vp-p, 75 ohms
PB/CB: 0.7 Vp-p, 75 ohms
PR/CR: 0.7 Vp-p, 75 ohms
DVD DIGITAL OUT (MHC-GZR7D only)
(Square optical connector jack, rear panel):
Wavelength 660 nm
PHONES (stereo mini jack):
accepts headphones of 8 ohms or more
SUBWOOFER OUT (MHC-GZR8D/GZR7D only):
Voltage 1 V, impedance 1 kilohms
FRONT SPEAKER:
MHC-GZR9D: Use only the supplied speaker SS-GZR9D.
MHC-GZR8D/GZR7D:
Use only the supplied speaker SS-GZR8D.
SURROUND SPEAKER (MHC-GZR9D/GZR8D only):
Use only the supplied speaker SS-RSX9D.
CENTER SPEAKER (MHC-GZR9D/GZR8D only):
Use only the supplied speaker SS-CTX9D.
SUBWOOFER (MHC-GZR9D only):
Use only the supplied subwoofer SS-WGV9D.

USB section

Supported bit rate MP3 (MPEG 1 Audio Layer-3): 32 – 320 kbps
WMA: 48 – 192 kbps
AAC: 48 – 320 kbps
Sampling frequencies
MP3 (MPEG 1 Audio Layer-3): 32/44.1/48 kHz
WMA: 44.1 kHz
AAC: 44.1 kHz
(USB) port: Maximum current: 500 mA

Disc player section

System: Compact disc and digital audio and video system
Laser Diode Properties
Emission duration: Continuous Laser Output*:
Less than 44.6μW
*This output is the value measurement at a distance of 200mm from the objective lens surface on the Optical Pick-up Block with 7mm aperture.
Frequency response DVD (PCM 48 kHz): 2 Hz – 22 kHz (±1 dB)
CD: 2 Hz – 20 kHz (±0.5 dB)
Video color system format
NTSC and PAL

Tape deck section

Recording system: 4-track 2-channel, stereo

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range: 87.5 – 108.0 MHz (50 kHz step)
Antenna: FM lead antenna
Antenna terminals: 75 Ω unbalanced
Intermediate frequency:
10.7 MHz

AM tuner section

Tuning range:
Australian model: 531 – 1,710 kHz (with 9 kHz tuning interval)
530 – 1,710 kHz (with 10 kHz tuning interval)
Other models: 531 – 1,602 kHz (with 9 kHz tuning interval)
530 – 1,610 kHz (with 10 kHz tuning interval)
Antenna: AM loop antenna
Antenna terminals: External antenna terminal
Intermediate frequency:
450 kHz

General

Power requirements
Australian model: AC 230 – 240 V, 50/60 Hz
Thai model: AC 220 V, 50/60 Hz
Other models: AC 120, 220, 230 – 240 V, 50/60 Hz, adjustable with voltage selector
Power consumption
MHC-GZR9D: 270 W
MHC-GZR8D: 240 W
MHC-GZR7D: 170 W
Dimensions (w/h/d) (excl. speakers)
MHC-GZR9D: Approx. 280 × 325 × 415 mm
MHC-GZR8D/GZR7D:
Approx. 280 × 325 × 382 mm
Mass (excl. speakers)
MHC-GZR9D: Approx. 12 kg
MHC-GZR8D: Approx. 11.5 kg
MHC-GZR7D: Approx. 10.5 kg

Design and specifications are subject to change without notice.

SAFETY-RELATED COMPONET WARNING!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

NOTES ON CHIP COMPONENT REPLACEMENT

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

FLEXIBLE CIRCUIT BOARD REPAIRING

- Keep the temperature of soldering iron around 270 °C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.
(**Caution:** Some printed circuit boards may not come printed with the lead free mark due to their particular size)

: LEAD FREE MARK

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40 °C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350 °C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

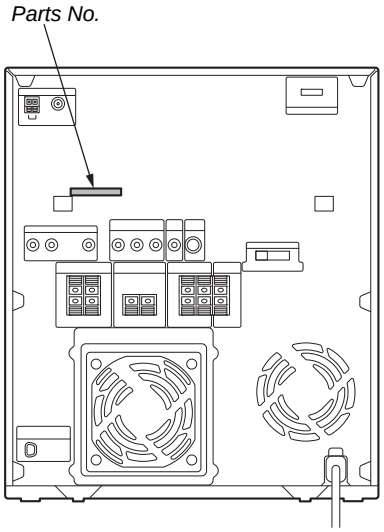
NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pickup block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

This appliance is classified as a CLASS 1 LASER product. This marking is located on the rear exterior.

MODEL IDENTIFICATION
– Back Panel –



Model	Parts No.
GZR9D: E3, E15	3-285-875-1□
GZR9D: SP	3-285-875-4□
GZR9D: PH	3-285-875-6□
GZR9D: E2	3-285-875-7□
GZR9D: AUS	3-285-875-8□
GZR8D: E3, E15	3-291-798-1□
GZR8D: E12	3-291-798-3□
GZR8D: SP	3-291-798-4□
GZR8D: TH	3-291-798-5□
GZR8D: PH	3-291-798-6□
GZR7D: E3, E15	3-291-799-1□
GZR7D: E12	3-291-799-3□
GZR7D: SP	3-291-799-4□
GZR7D: TH	3-291-799-5□
GZR7D: PH	3-291-799-6□

- Abbreviation
  E2 : 120V AC area in E model
  E3 : 240V AC area in E model
  E12 : 220 – 240V AC area in E model
  E15 : Iran model
  PH : Philippines model
  SP : Singapore model
  TH : Thai model
  AUS : Australian model

TABLE OF CONTENTS

1. SERVICING NOTES 6

2. GENERAL
Guide to parts and controls 8

3. DISASSEMBLY
3-1. Case 20
3-2. Loading Panel 20
3-3. Tuner Pack, DMPORT Board 21
3-4. DVD Block Section 21
3-5. Front Panel Section 22
3-6. SUB-TRANS Board 22
3-7. Back Panel Section 23
3-8. Boards Section 23
3-9. SURR & CENT AMP Board (HCD-GZR8D/GZR9D) 24
3-10. MAIN Board 24
3-11. REGULATOR Board 25
3-12. AMP FR & SW Board 25
3-13. Tape Mechanism Deck 26
3-14. MIC Board, HEADPHONE Board 26
3-15. Lid (TC-L), Lid (TC-R) 27
3-16. PANEL Board, VOLUME Board, KEY-RIGHT Board 27
3-17. USB Board 28
3-18. KEY-LEFT Board 28
3-19. VIDEO Board 29
3-20. DMB18 Board 29
3-21. DVD Assy 30
3-22. Optical Pick-up 30
3-23. DRIVER Board, SW Board 31
3-24. SENSOR Board 31
3-25. MOTOR (TB) Board 32
3-26. MOTOR (LD) Board 32

4. TEST MODE 33

5. MECHANICAL ADJUSTMENTS 38

6. ELECTRICAL ADJUSTMENTS 39

7. DIAGRAMS
7-1. Block Diagram –RF/Servo Section– 43
7-2. Block Diagram –Video Section– 44
7-3. Block Diagram –Main Section– 45
7-4. Block Diagram –Audio Section– 46
7-5. Block Diagram –Display/Power Section– 47
7-6. Printed Wiring Boards –Driver Section– 49
7-7. Schematic Diagram –Driver Section– 50
7-8. Printed Wiring Board –DMB18 Board (1/2)– 51
7-9. Printed Wiring Board –DMB18 Board (2/2)– 52
7-10. Schematic Diagram –DMB18 Board (1/5)– 53
7-11. Schematic Diagram –DMB18 Board (2/5)– 54
7-12. Schematic Diagram –DMB18 Board (3/5)– 55
7-13. Schematic Diagram –DMB18 Board (4/5)– 56
7-14. Schematic Diagram –DMB18 Board (5/5)– 57
7-15. Printed Wiring Board –Main Section– 58
7-16. Schematic Diagram –Main Section (1/4)– 59
7-17. Schematic Diagram –Main Section (2/4)– 60
7-18. Schematic Diagram –Main Section (3/4)– 61
7-19. Schematic Diagram –Main Section (4/4)– 62
7-20. Printed Wiring Boards –Mic/Headphone Section– 63
7-21. Schematic Diagram –Mic/Headphone Section– 64
7-22. Printed Wiring Board –TC Section– 65
7-23. Schematic Diagram –TC Section– 66
7-24. Printed Wiring Board –Video Section– 67
7-25. Schematic Diagram –Video Section– 68
7-26. Printed Wiring Board –DMPORT Section– 69
7-27. Schematic Diagram –DMPORT Section– 70
7-28. Printed Wiring Boards –Regulator/USB Section– 71
7-29. Schematic Diagram –Regulator/USB Section– 72
7-30. Printed Wiring Boards –Panel Section– 73
7-31. Schematic Diagram –Panel Section– 74
7-32. Printed Wiring Boards –Front Speaker Section– 75
7-33. Schematic Diagram –Front Speaker Section– 76
7-34. Printed Wiring Boards –Surround/Center Speaker, Subwoofer Section– (HCD-GZR8D/GZR9D) 77
7-35. Schematic Diagram –Surround/Center Speaker, Subwoofer Section– (HCD-GZR8D/GZR9D) 78
7-36. Printed Wiring Boards –Power Section– 79
7-37. Schematic Diagram –Power Section– 80

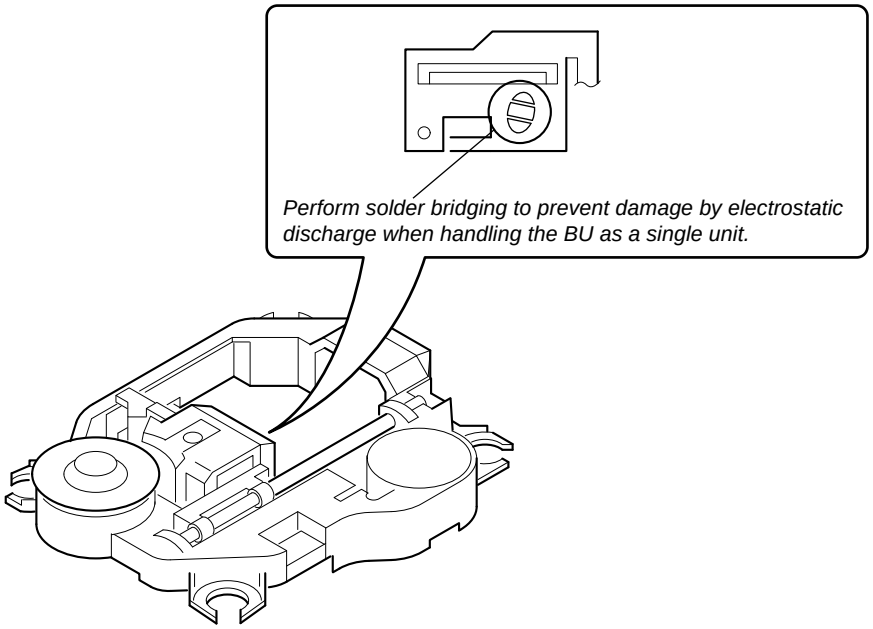
8. EXPLODED VIEWS
8-1. Overall Section 93
8-2. Front Panel Section-1 94
8-3. Front Panel Section-2 95
8-4. Back Panel Section 96
8-5. Chassis Section 97
8-6. DVD Block Section 98
8-7. DVD Mechanism Deck Section-1 99
8-8. DVD Mechanism Deck Section-2 100

9. ELECTRICAL PARTS LIST 101

SECTION 1
SERVICING NOTES

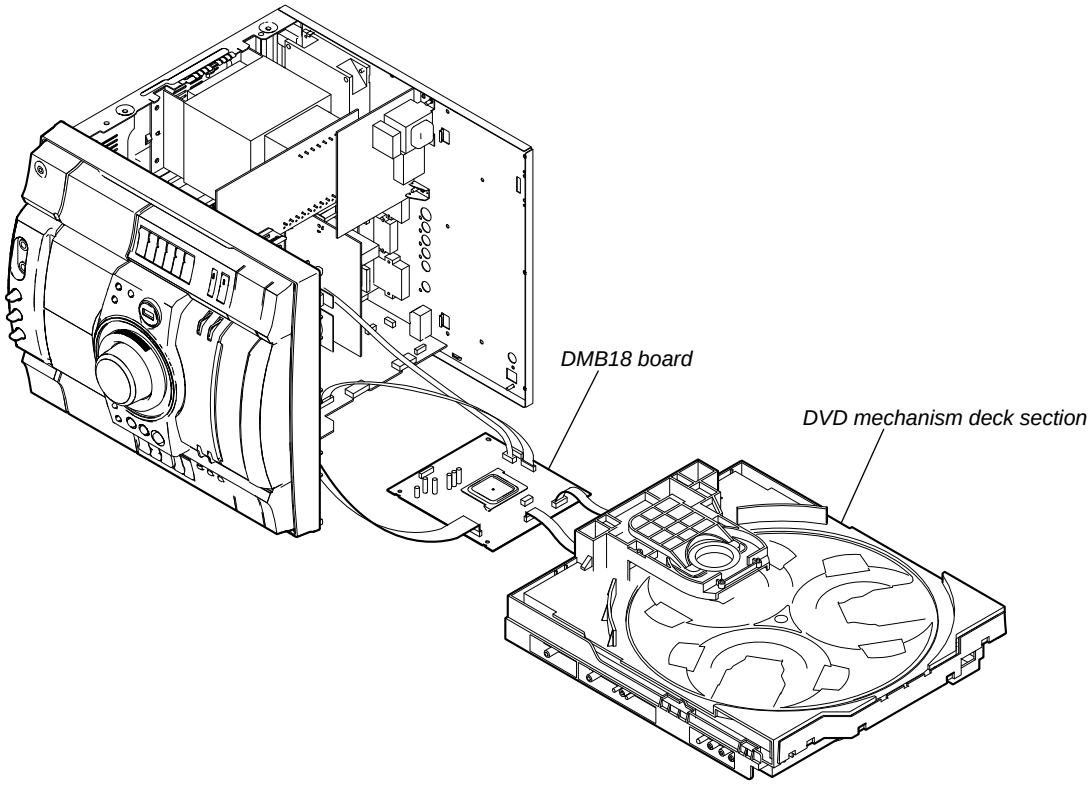
Notes on Disconnecting Between the OP Section (DVBU101) and the DMB18 Board

Note: When disconnecting between the OP section (DVBU101) and the DMB18 board, be sure to make a solder brige for electrostatic prevention as illustrated in the figure (before disconnection).
On the contrary, when installing the OP section, never remove the solder bride until the OP section and the DMB18 board are connected.
Be sure to remove the solder bridge after the OP section and the DMB18 board have been connected.



Service Position for the DVD Mechanism Deck Section

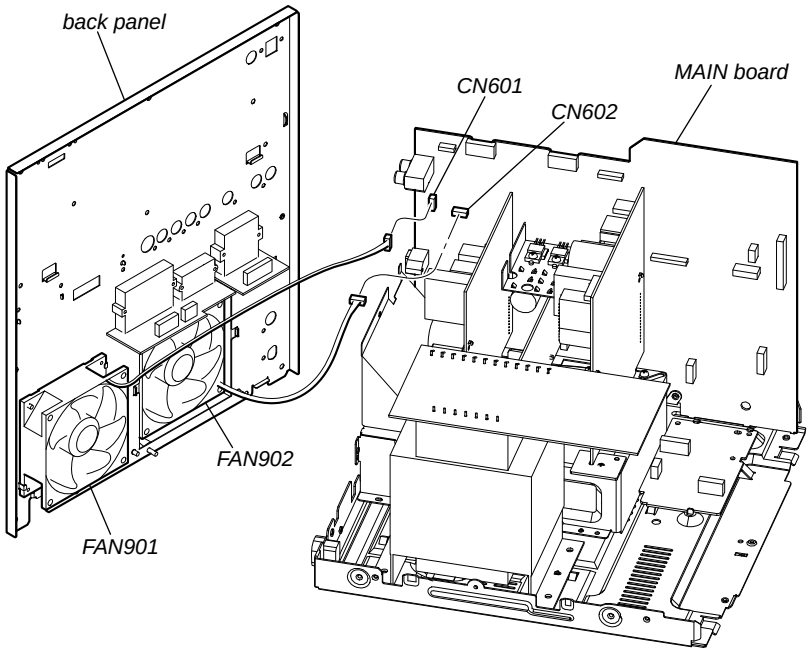
Refer to the figure given below when disassembling the DVD mechanism deck section.



Notes on Installing the Two Cooling Fans (FAN901 and FAN902) (HCD-GZR8D/GZR9D)

Note: The HCD-GZR8D/GZR9D has two cooling fans (FAN901 and FAN902) used. The connectors of these fans have the same color and the same number of pins.

When installing these fans, check the marking of CN601 and CN602 on the MAIN board and ensure that they are located correctly. The CN601 on the MAIN board is to be attached with the connector of FAN901 where as the CN602 is to be attached with the connector of FAN902.



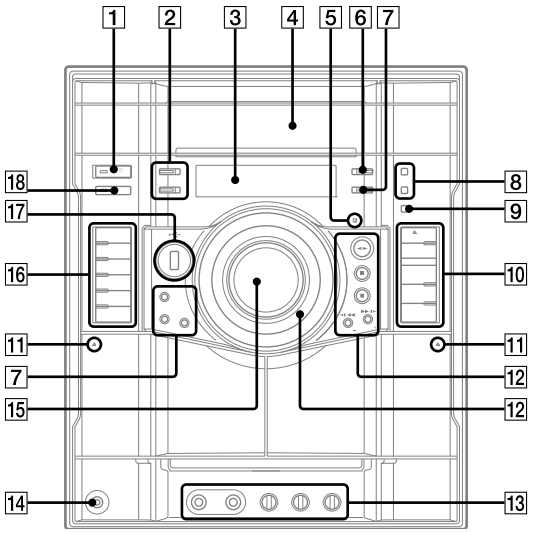
SECTION 2
GENERAL

This section is extracted from instruction manual.

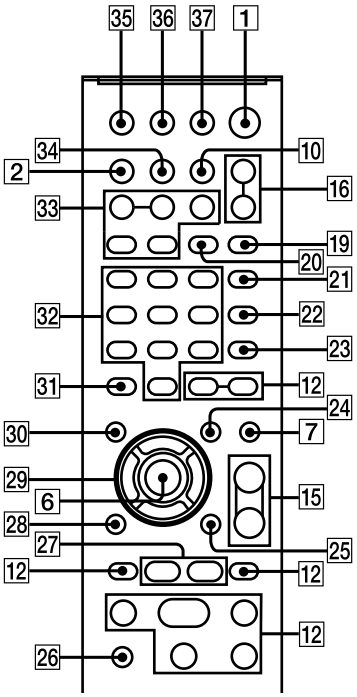
Guide to parts and controls

This manual mainly explains operations using the remote, but the same operations can also be performed using the buttons on the unit having the same or similar names.

Unit



Remote



1
I/⏻ (on/standby) (24, 79, 106, 129)
Press to turn on or off the system.

Unit: STANDBY indicator (118)
Lights up when the system is turned off.

Remote: TV I/⏻ [1] (on/standby) (29)
Press to turn on or off the TV.

2
DISPLAY (27, 33, 73, 107, 108)
Press to display the disc information or clock in the front panel display.

Unit: ILLUMINATION (108, 129)
Press to change the illumination pattern around MASTER VOLUME 15.

3
Display

4
Disc tray

5
Remote sensor

Continued

6

ENTER (28, 33, 34, 39, 44, 49, 53, 58, 59, 60, 63, 71, 74, 76, 79, 83, 87, 95, 102, 105, 129)
Press to enter the settings.

7

SOUND FIELD (95)
Press to select the sound field for the surround sound.

Unit: GROOVE (94)
Press to reinforce the bass.

Unit: PRESET EQ (94)
Press to select the sound effect.

Unit: EQ BAND/MEMORY (95)
Press to select the frequency band when adjusting the equalizer.

8

REC TO USB (79, 83)
Press to transfer music from a disc or record the sound from an analog audio source to the connected optional USB device.
Press to mark track numbers during recording.

REC TO TAPE (76)
Press to record on a tape.

9

OPTIONS (74, 75, 107, 116)
Press to enter the option menus.

10

Unit: ⏏ OPEN/CLOSE (38)
Press to load or eject a disc.

Unit: DISC SKIP/EX-CHANGE (38, 40)
Press to select a disc.
Press to exchange a disc while playing.
Remote: DISC SKIP (40, 79)
Press to select a disc.

Unit: DISC 1 – DISC 3 (40, 76, 79)
Press to select a disc.
Press to switch to the "DVD" function from other function.

11

⏏ PUSH/PUSH ⏏ (74)
Press to insert or eject a tape.

12

Unit: ◄► (play) (26, 38, 74, 87)
Remote: ▷[2] (play) (38, 74, 87)
Press to start playback.

II (pause) (27, 39, 75)
Press to pause playback.

■ (stop) (39, 72, 75, 79)
Press to stop playback.

◀◀/▶▶ (rewind/fast forward) (39, 75)
Press to find a point in a track, chapter or video file.

Unit: ◄▮/▮► (39)
Remote: ◄▮ SLOW/ SLOW ▮► (39)
Press to watch the slow-motion play.

TUNING +/– (71, 72, 73)
Press to tune in the desired station.

Remote: 🗀 +/– (36, 39)
Press to select a folder.

Unit: OPERATION DIAL (39, 72, 74, 76, 95, 107)
Turn to select a track, chapter or video file.
Turn to select the preset station.
Remote: PRESET +/– (72)
Press to select the preset station.
Remote: ⏮/⏭ (go backward/forward) (35, 37, 39, 74, 88)
Press to select a track, chapter or video file.

Remote: TV CH +/– [1] (29)
Press to change the TV channels.

13
MIC 1/MIC 2 jacks (77, 98)
Connect a microphone.

MIC 1 LEVEL/MIC 2 LEVEL (98)
Turn to adjust the microphone volume.

ECHO LEVEL (99)
Turn to adjust the echo level.

14
PHONES jack
Connect the headphones.

15
Unit: MASTER VOLUME (38, 99, 105, 108)
Turn to adjust the volume.
Remote: VOLUME +/– [2] (38, 99, 105)
Press to adjust the volume.

Remote: TV VOL +/– [1][2] (29)
Press to adjust the TV volume.

Continued

16

Unit: DVD (26, 27, 34, 38, 76, 79, 98)
Press to select the “DVD” function.

Unit: USB (76, 81, 85, 98)
Press to select the “USB” function.

Unit: TAPE A/B (74, 75)
Press to select the “TAPE” function.
Press to select “TAPE A” or “TAPE B.”

Unit: TUNER/BAND (71, 72)
Press to select the “TUNER” function.
Press to switch among FM and AM band.

Unit: DMPORT (116)
Press to select the “DMPORT” function.

Unit: VIDEO/SAT (116)
Press to select the “VIDEO” or “SAT” function.

Remote: FUNCTION +/– (27, 34, 38, 71, 74, 79, 83, 85, 98, 116)
Press to select the function.

17

(USB) port (78, 83, 85)
Connect an optional USB device.

(USB) indicator
Lights up in red when transferring or recording to the connected optional USB device or when erasing audio tracks or folders.

18 (MHC-GZR9D only)
SUBWOOFER (30)
Press to turn on or off the subwoofer.

SUBWOOFER indicator (30)
Lights up when the subwoofer is turned on.

19

PICTURE NAVI (54, 89)
Press to display the thumbnail pictures.

20

REPEAT/FM MODE (48, 73, 93)
Press to listen to a disc, an USB device, a single track or file repeatedly.
Press to select FM reception mode (monaural or stereo).

21

AUDIO (41, 99, 112)
Press to display the current audio signal on the TV screen.

22

SUBTITLE (40)
Press to switch the language of the subtitle (DVD VIDEO only).

D. TUNING (72)
Press to switch to the direct tuning mode.

23

ANGLE (40)

Press to change the angle (DVD VIDEO with multi-angles only).

24

DVD/TUNER MENU (49, 52, 58, 71, 87)

Press to display the menu items on the TV screen.
Press to preset the radio station.

25

DISPLAY (28, 35, 44, 49, 55, 59, 60, 63, 80, 87, 102, 112, 139)

Press to display the Control Menu on the TV screen.
The Control Menu is displayed only when the "DVD" function or "USB" function is selected.

26

TV[1] (29)

Press to operate the TV functions.

27

◄II STEP II► (39)

Press to play one frame at a time when playback is paused.

ADVANCE •→ (39, 53, 58, 87)

Press to advance the current scene during playback.

←• REPLAY (39, 53, 58, 87)

Press to replay the previous scene during playback.

28

RETURN (43, 53, 59, 81, 88)

Press to return to the previous menu on the TV screen.

29

↑/↓/←/→ (28, 29, 44, 45, 49, 71, 80, 96, 105)

Press to select the menu items.

30

DVD TOP MENU (49)

Press to display the DVD title on the TV screen.

31

CLEAR (34, 36, 45, 51, 54, 70, 81, 89)

Press to delete a pre-programmed track or file.
Press to erase audio tracks or folders from the connected optional USB device.

-/--[1] (29)

Press to enter a single digit or double digit number.

32

Numeric buttons[2] (29, 39, 49, 60, 65, 72)

Press to select a track, chapter or video file.
Press to enter a password.

10/0[1]

Press to enter a double digit number.

Continued

33

KEY CONTROL ♭/♯ (101)

Press to change the key to suit your vocal range.

SCORE (103)

Press to start or stop calculating your vocal score.

KARAOKE MODE (99)

Press to select the Karaoke mode.

KARAOKE PON (101)

Press to activate the "Karaoke Pon" function.

34

TIME/TEXT (108, 110)

Press to change the information appearing in the front panel display or on-screen display.

35

SLEEP (36, 105)

Press to set the Sleep Timer.

TV INPUT[1] (29)

Press to switch the input sources.

36

TIMER MENU (33, 105)

Press to set the clock and the timers.

37

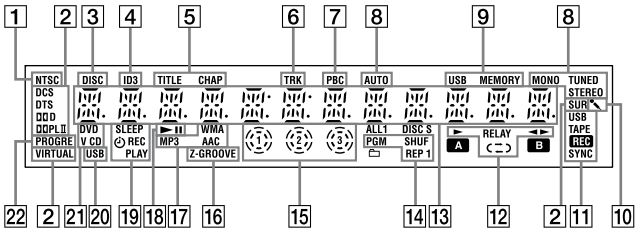
THEATRE SYNC (36)

Press to activate the "THEATRE SYNC" function.

[1] This button is used to operate a Sony TV. For details, see "Operating a Sony TV" (page 29).

[2] The numeric button 5 33, TV VOL + 15, VOLUME + 15 and ▷ 12 buttons on the remote have a tactile dot. Use the tactile dot as a reference when operating the system.

Display



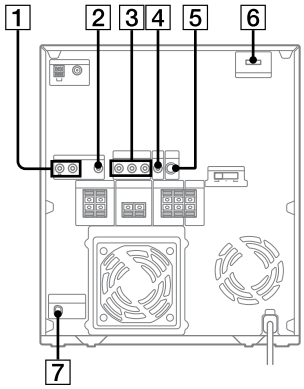
1 Lights up when the output video signal is NTSC. (27)
2 Indicates the current surround format.
3 Lights up when disc number is displayed.
4 Lights up when the ID3 tag information is displayed.
5 Lights up when the title or chapter number is displayed.
6 Lights up when the track information is displayed.
7 Lights up when playing VIDEO CD with PBC function. (42)
8 Lights up in "TUNER" function. (71)
9 Lights up when the USB device is recognized. (85)
10 Lights up when the Karaoke Mode is turned on. (98)
11 Lights up during transfer or recording. (75, 78, 83)
12 Indicates the tape playback direction. (74)
13 Displays the text information.
14 Indicates the selected play mode. (44)
15 Indicates the disc presence. (38)
16 Lights up when "GROOVE" or "Z-GROOVE" is turned on. (94)
17 Indicates the file format.
18 Indicates the playback status of the disc or USB device.
19 Lights up when the timer is set. (105)
20 Lights up when the "USB" function is selected. (85)
21 Indicates the type of disc being played back. (38)
22 Lights up when "PROGRESSIVE (COMPONENT OUT)" is set to "ON." (28)

Hooking up optional components

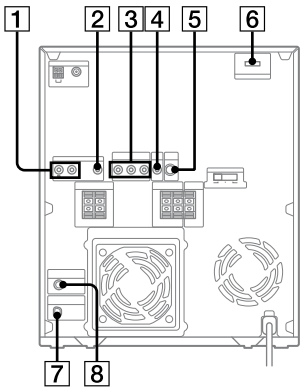
To enhance your system, you can connect optional components. Refer to the operating instructions provided with each component.

Rear panel

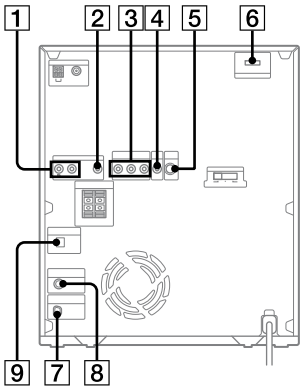
MHC-GZR9D



MHC-GZR8D



MHC-GZR7D



Continued

1 VIDEO/SAT AUDIO IN L/R jacks

Connect the audio output jacks of an optional component (such as VCR or satellite tuner).

2 VIDEO/SAT VIDEO IN jack

Connect the video output jack of an optional component (such as VCR or satellite tuner).

3 COMPONENT VIDEO OUT jacks

Connect the component video input jacks of the TV or projector. If your TV accept progressive format signals, you must use this connection and set "PROGRESSIVE (COMPONENT OUT)" to "ON" (page 28). You can enjoy higher quality video images.

Note

You cannot output the video signal from the VIDEO/SAT VIDEO IN jack through the COMPONENT VIDEO OUT jacks of this unit.

4 VIDEO OUT jack

Connect the video input jack of the TV or projector.

5 S VIDEO OUT jack

Connect the S Video input jack of the TV or projector. You can enjoy higher quality video images when you select the S VIDEO.

Note

You cannot output the video signal from the VIDEO/SAT VIDEO IN jack through the S VIDEO OUT jack of this unit.

6 DMPORT (DIGITAL MEDIA PORT)

Connect the DIGITAL MEDIA PORT adapter (not supplied). You need to connect the DIGITAL MEDIA PORT adapter to an optional audio device (portable audio player, etc.).

Notes

- Available DIGITAL MEDIA PORT adapters vary in each area.
- Do not connect an adapter other than the DIGITAL MEDIA PORT adapter.
- Do not connect or disconnect the DIGITAL MEDIA PORT adapter to/from the DMPORT while the system is on.
- When using a DIGITAL MEDIA PORT adapter (not supplied) that has video output function, connect the adapter directly to the TV.

7 D-LIGHT SYNC OUT jack (Except for Russian and Australian models)

Connect the D-LIGHT SYNC controller (not supplied). You need to connect the D-LIGHT SYNC controller to the lighting device* (not supplied). The lighting device will react according to control signals transmitted by the D-LIGHT SYNC controller upon receiving music source from the system. For details on the use of D-LIGHT SYNC controller and lighting device, refer to the respective operating instructions supplied with the respective device.

* Refer to the D-LIGHT SYNC controller operating instruction for the recommended lighting device.

Note

The lighting effect may be different depending on the connected lighting device or the type of music being played back.

8 SUBWOOFER OUT jack (MHC-GZR8D/GZR7D only)

Connect the audio input jack of an optional subwoofer*.

* SA-GNV111D is recommended. In some areas, the SA-GNV111D may not yet be available.

Note

The effect may be limited or noise may occur depending on the connected subwoofer or the type of music being played back.

9 DVD DIGITAL OUT jack (MHC-GZR7D only)

Connect the digital optical input jack of an optional digital component (such as amplifier). You can enjoy 5.1 channel sound, if the connected amplifier equipped with Dolby Digital or DTS decoder.

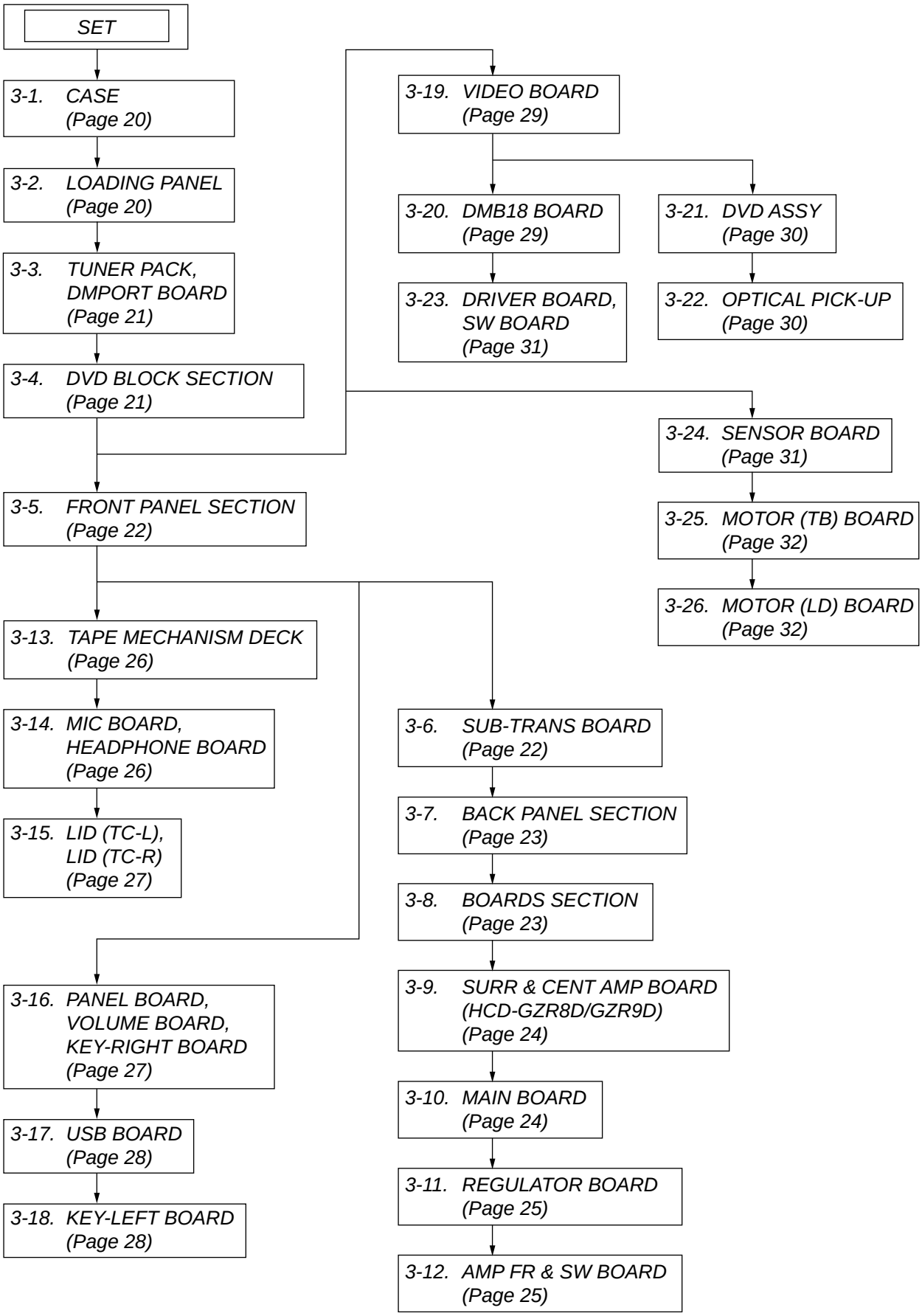
Notes

- Sound is output only when the system function is set to "DVD" or "USB."
- If you press AUDIO 21, SOUND FIELD 7 or the buttons related to Karaoke Mode, or if you connect or disconnect microphones or headphones, the sound cuts off for a moment.

Continued

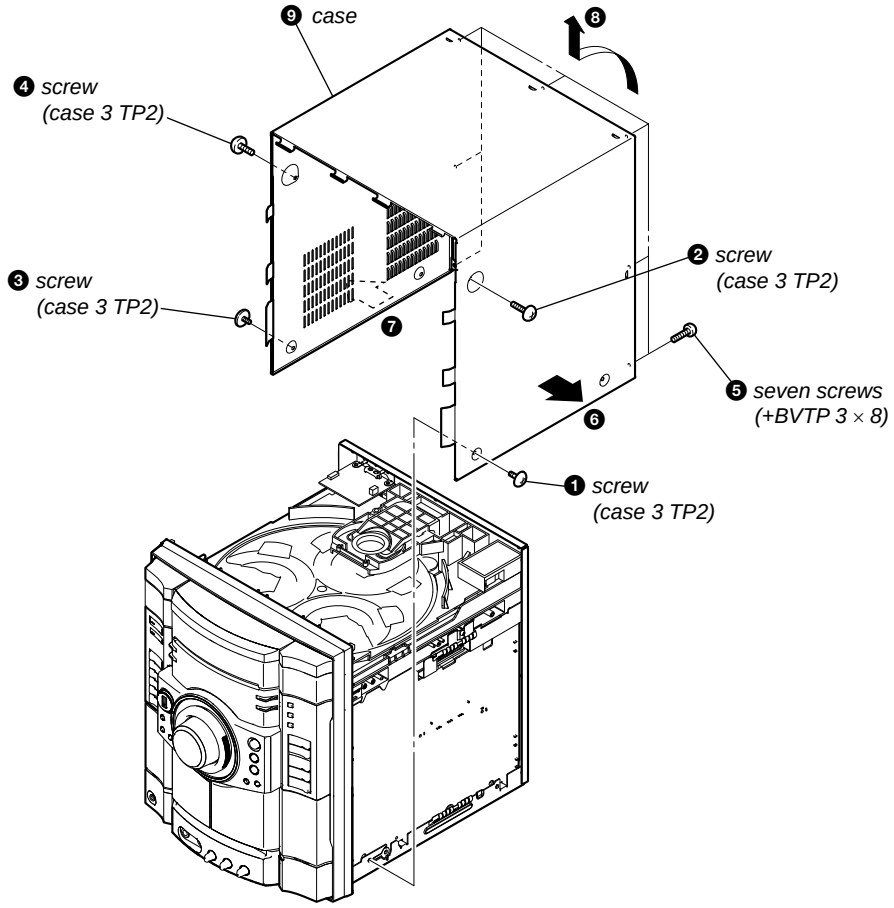
SECTION 3
DISASSEMBLY

- This set can be disassembled in the order shown below.

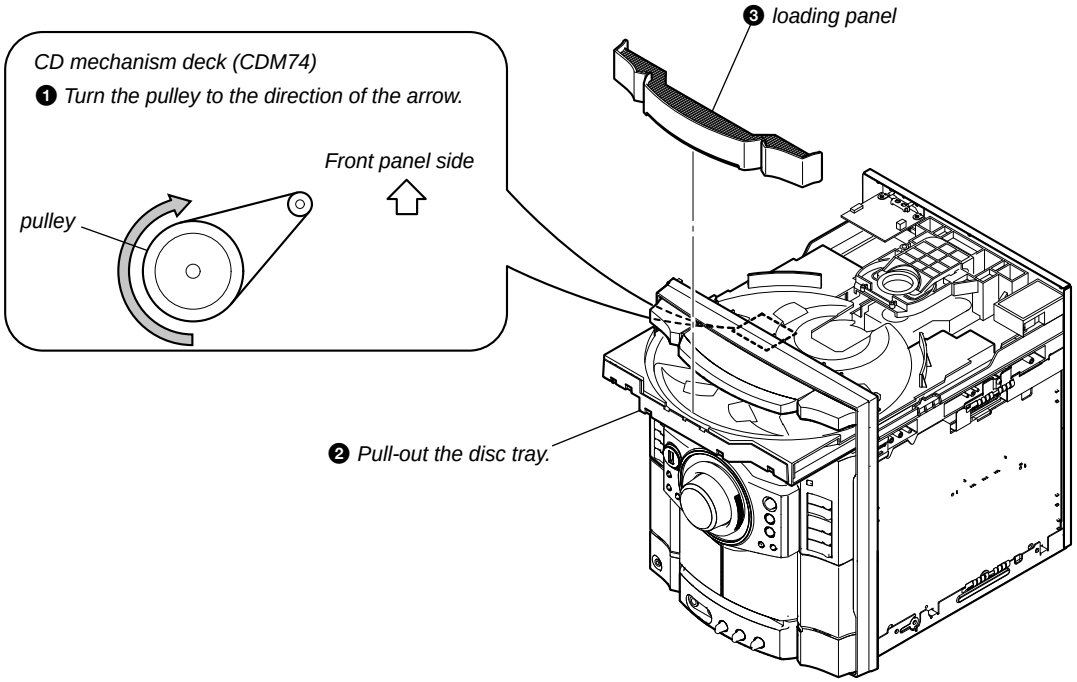

SET
3-1. CASE (Page 20)
3-2. LOADING PANEL (Page 20)
3-3. TUNER PACK, DMPORT BOARD (Page 21)
3-4. DVD BLOCK SECTION (Page 21)
3-5. FRONT PANEL SECTION (Page 22)
3-13. TAPE MECHANISM DECK (Page 26)
3-14. MIC BOARD, HEADPHONE BOARD (Page 26)
3-15. LID (TC-L), LID (TC-R) (Page 27)
3-16. PANEL BOARD, VOLUME BOARD, KEY-RIGHT BOARD (Page 27)
3-17. USB BOARD (Page 28)
3-18. KEY-LEFT BOARD (Page 28)
3-19. VIDEO BOARD (Page 29)
3-20. DMB18 BOARD (Page 29)
3-21. DVD ASSY (Page 30)
3-22. OPTICAL PICK-UP (Page 30)
3-23. DRIVER BOARD, SW BOARD (Page 31)
3-24. SENSOR BOARD (Page 31)
3-25. MOTOR (TB) BOARD (Page 32)
3-26. MOTOR (LD) BOARD (Page 32)
3-6. SUB-TRANS BOARD (Page 22)
3-7. BACK PANEL SECTION (Page 23)
3-8. BOARDS SECTION (Page 23)
3-9. SURR & CENT AMP BOARD (HCD-GZR8D/GZR9D) (Page 24)
3-10. MAIN BOARD (Page 24)
3-11. REGULATOR BOARD (Page 25)
3-12. AMP FR & SW BOARD (Page 25)

Note: Follow the disassembly procedure in the numerical order given.

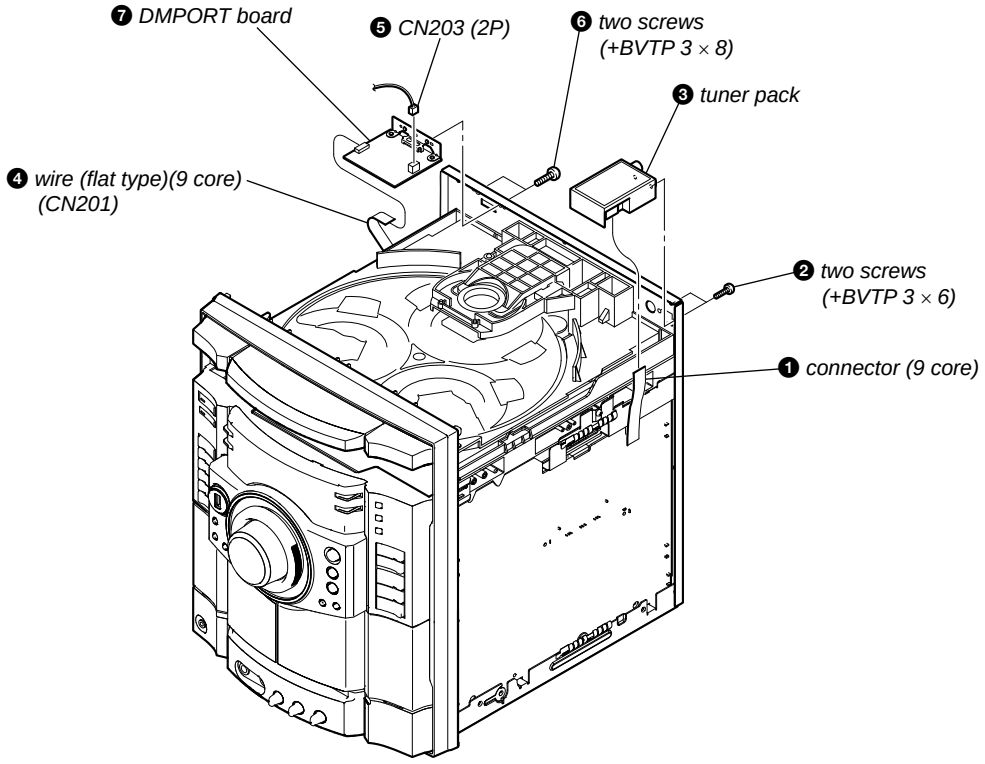
3-1. CASE



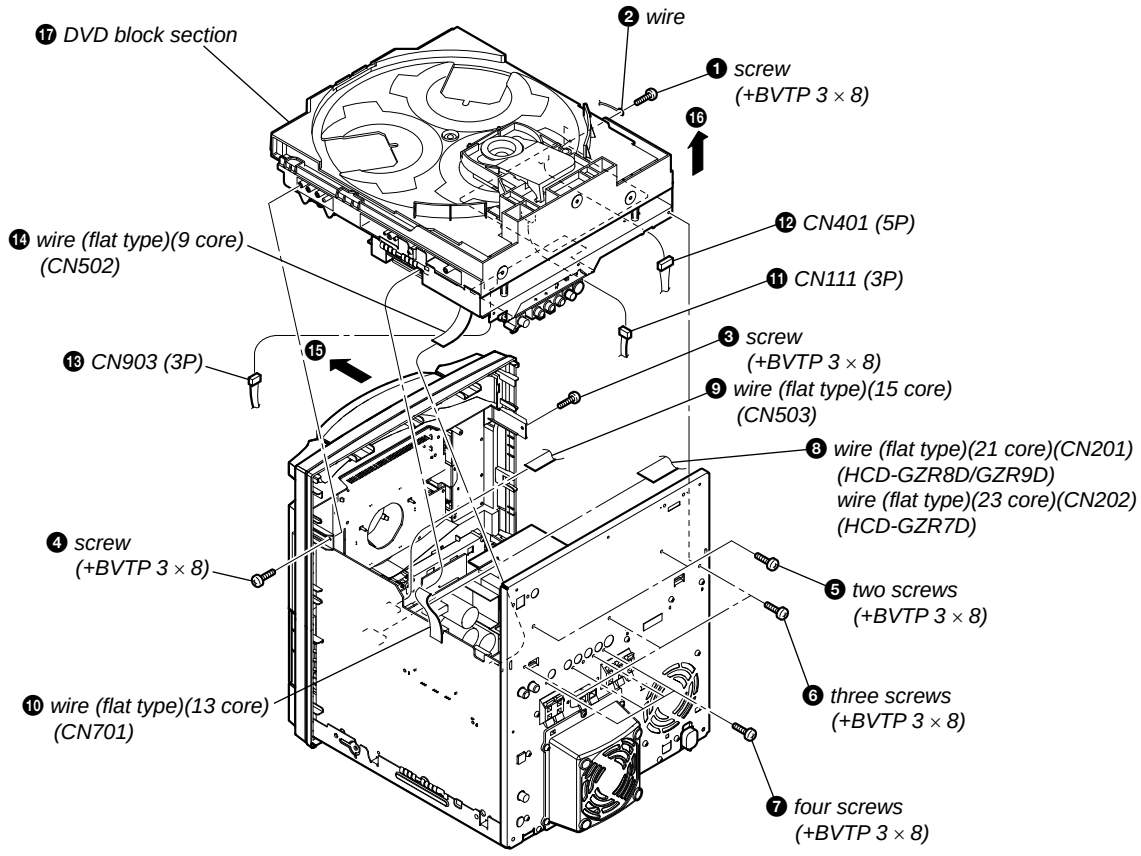
3-2. LOADING PANEL


3 loading panel
CD mechanism deck (CDM74)
1 Turn the pulley to the direction of the arrow.
Front panel side
pulley
2 Pull-out the disc tray.

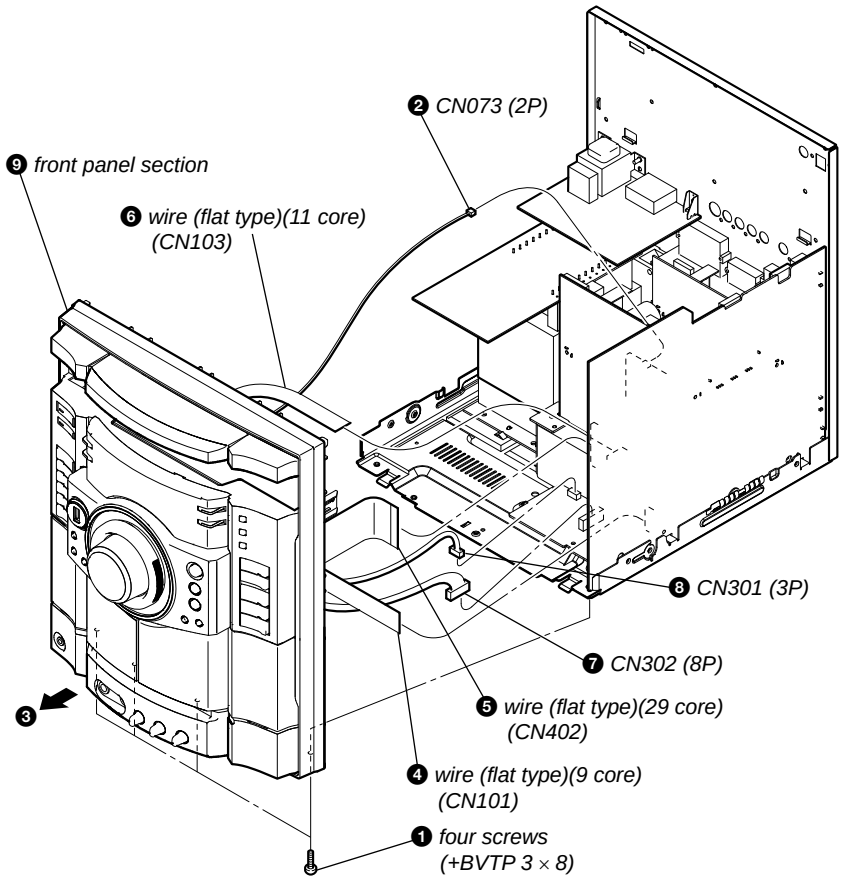
3-3. TUNER PACK, DMPORT BOARD


❼ DMPORT board
❺ CN203 (2P)
❻ two screws (+BVTP 3 × 8)
❸ tuner pack
❹ wire (flat type)(9 core) (CN201)
❷ two screws (+BVTP 3 × 6)
❶ connector (9 core)

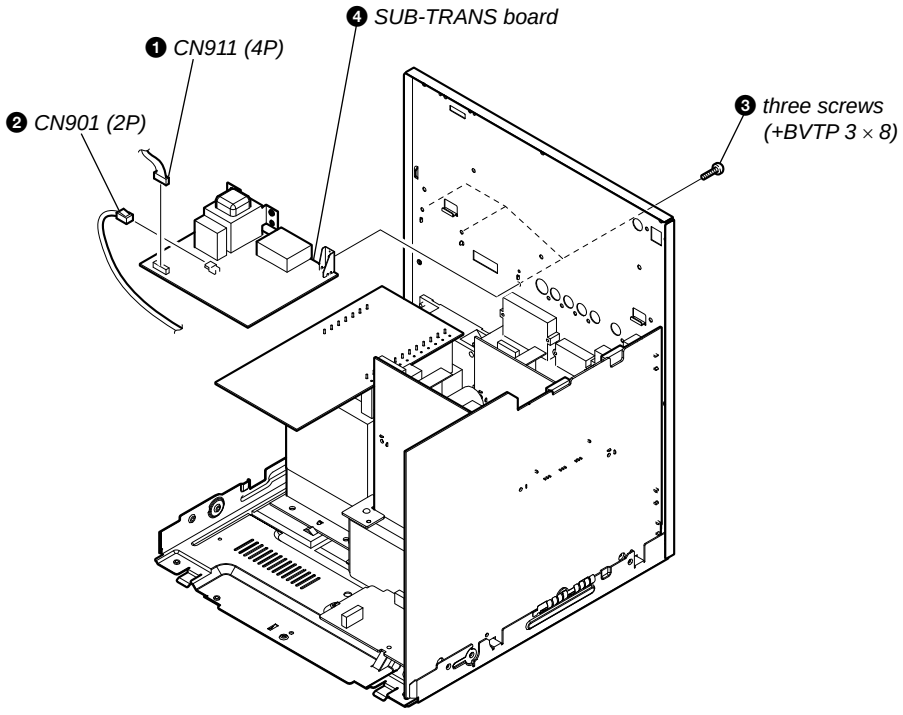
3-4. DVD BLOCK SECTION


⓱ DVD block section
❷ wire
❶ screw (+BVTP 3 × 8)
⓰
⓮ wire (flat type)(9 core) (CN502)
⓬ CN401 (5P)
⓫ CN111 (3P)
⓭ CN903 (3P)
⓯
❸ screw (+BVTP 3 × 8)
❾ wire (flat type)(15 core) (CN503)
❽ wire (flat type)(21 core)(CN201) (HCD-GZR8D/GZR9D) wire (flat type)(23 core)(CN202) (HCD-GZR7D)
❹ screw (+BVTP 3 × 8)
❺ two screws (+BVTP 3 × 8)
❻ three screws (+BVTP 3 × 8)
❿ wire (flat type)(13 core) (CN701)
❼ four screws (+BVTP 3 × 8)

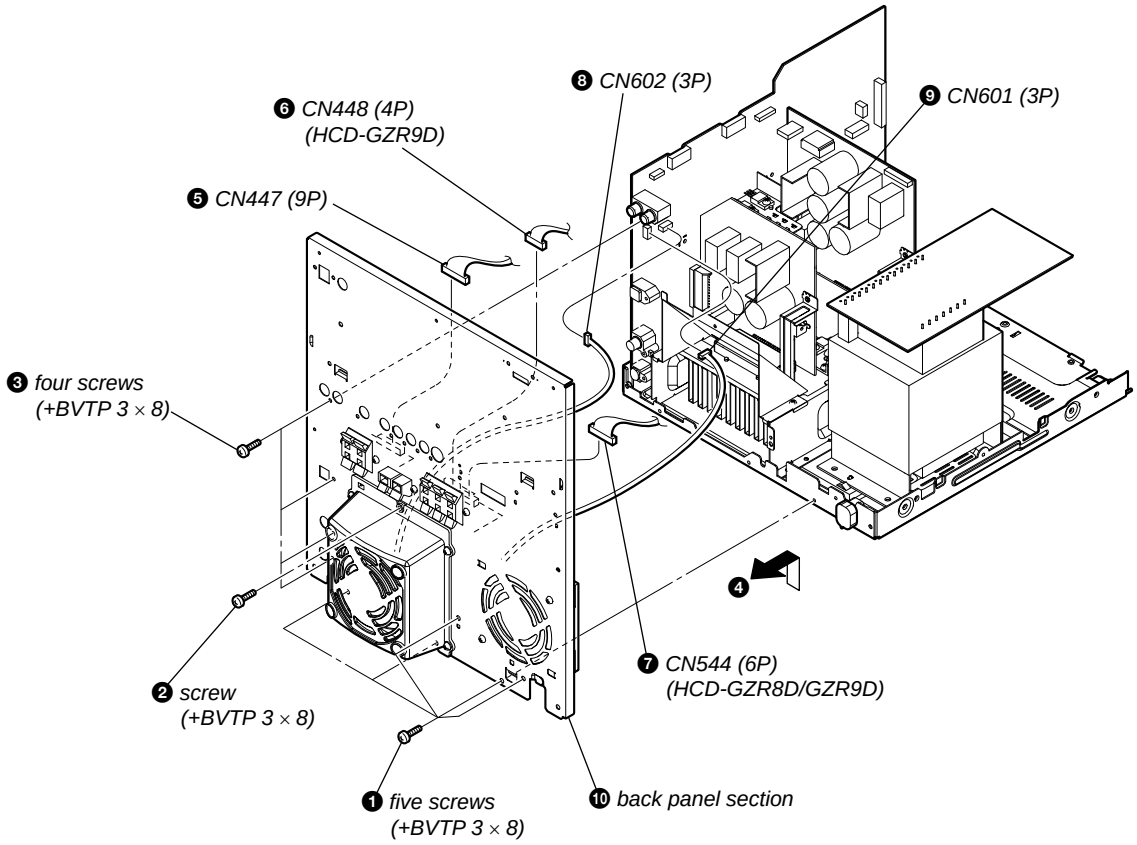
3-5. FRONT PANEL SECTION



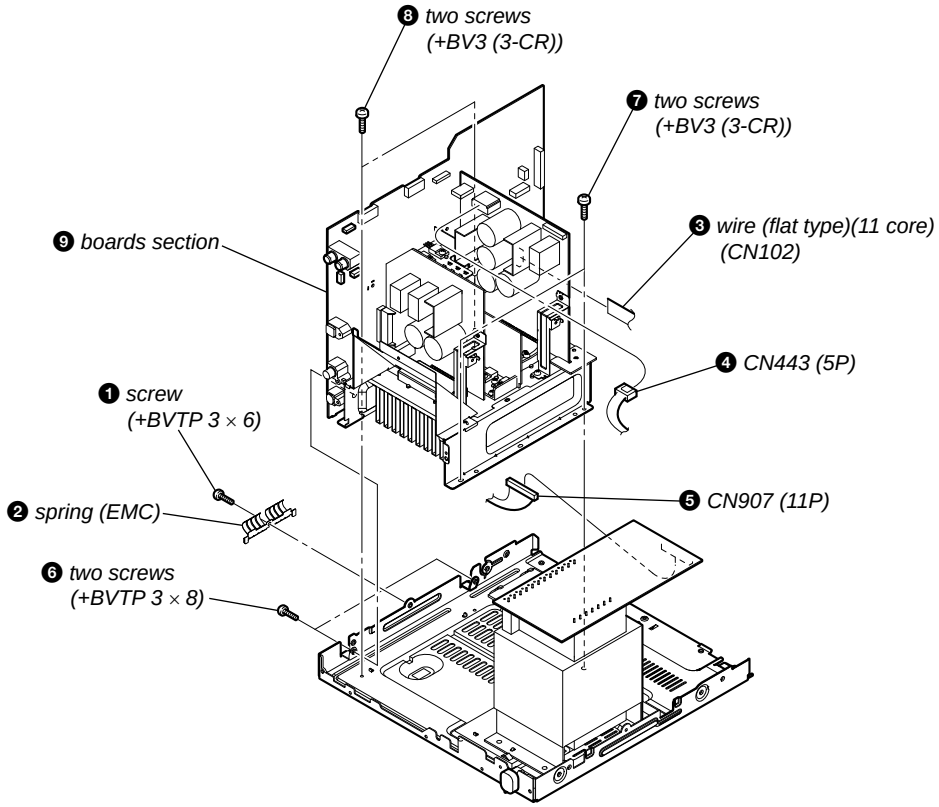
3-6. SUB-TRANS BOARD



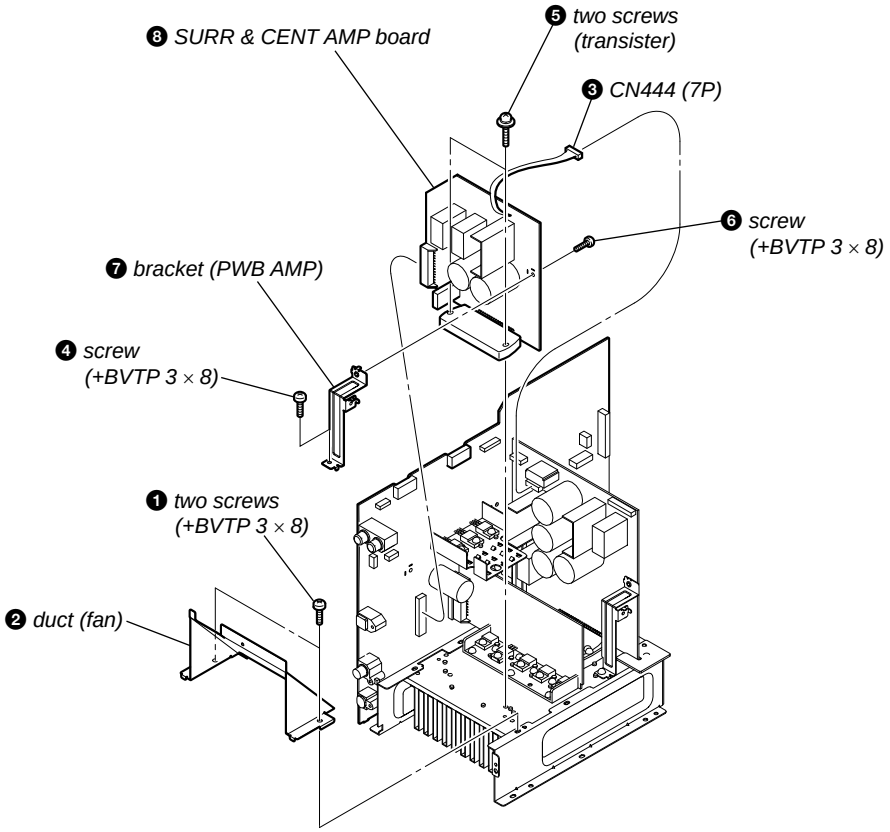
3-7. BACK PANEL SECTION



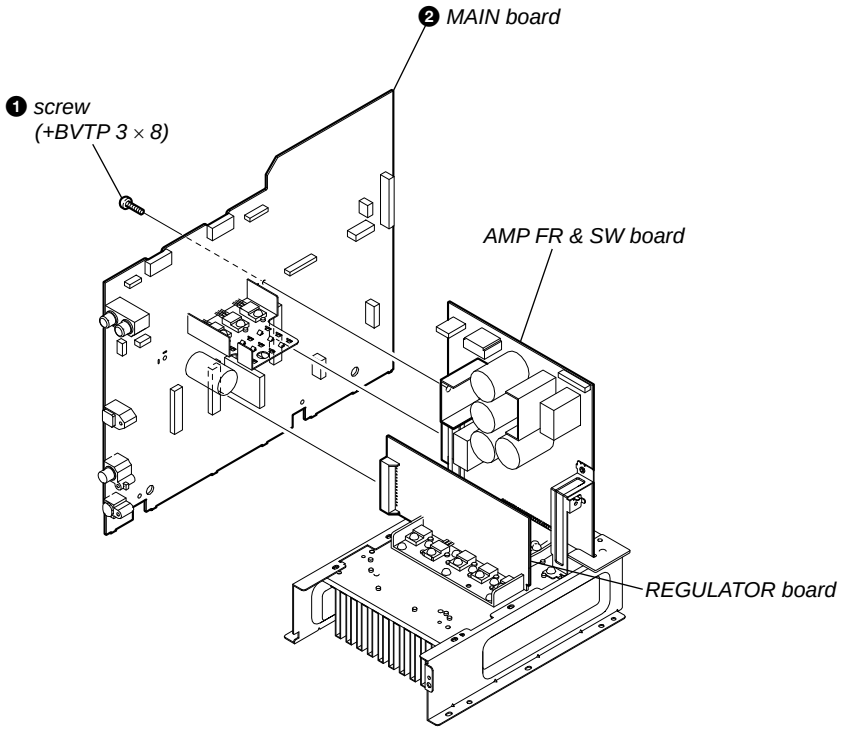
3-8. BOARDS SECTION



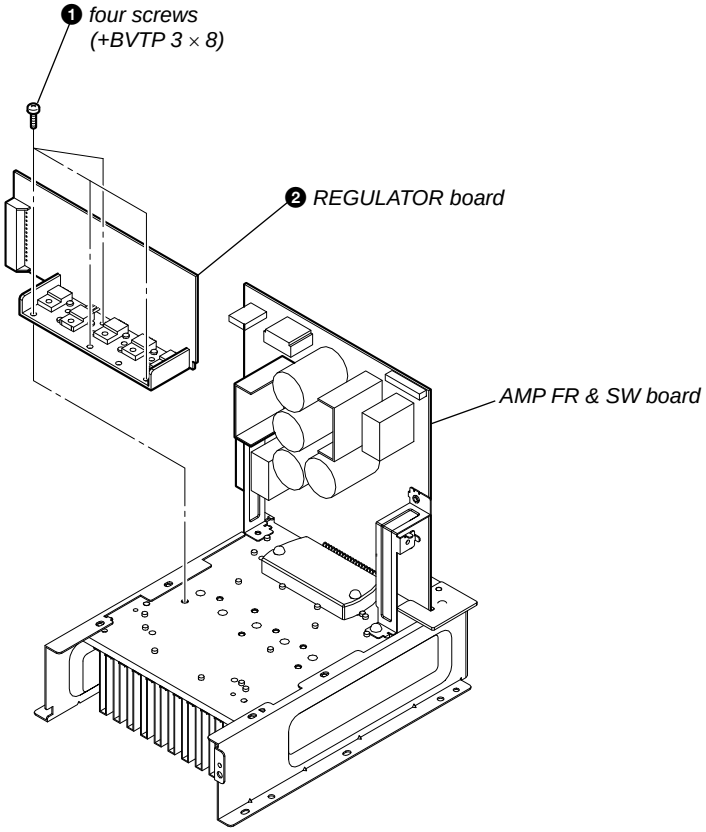
3-9. SURR & CENT AMP BOARD (HCD-GZR8D/GZR9D)


❽ SURR & CENT AMP board
❺ two screws (transister)
❸ CN444 (7P)
❻ screw (+BVTP 3 × 8)
❼ bracket (PWB AMP)
❹ screw (+BVTP 3 × 8)
❶ two screws (+BVTP 3 × 8)
❷ duct (fan)

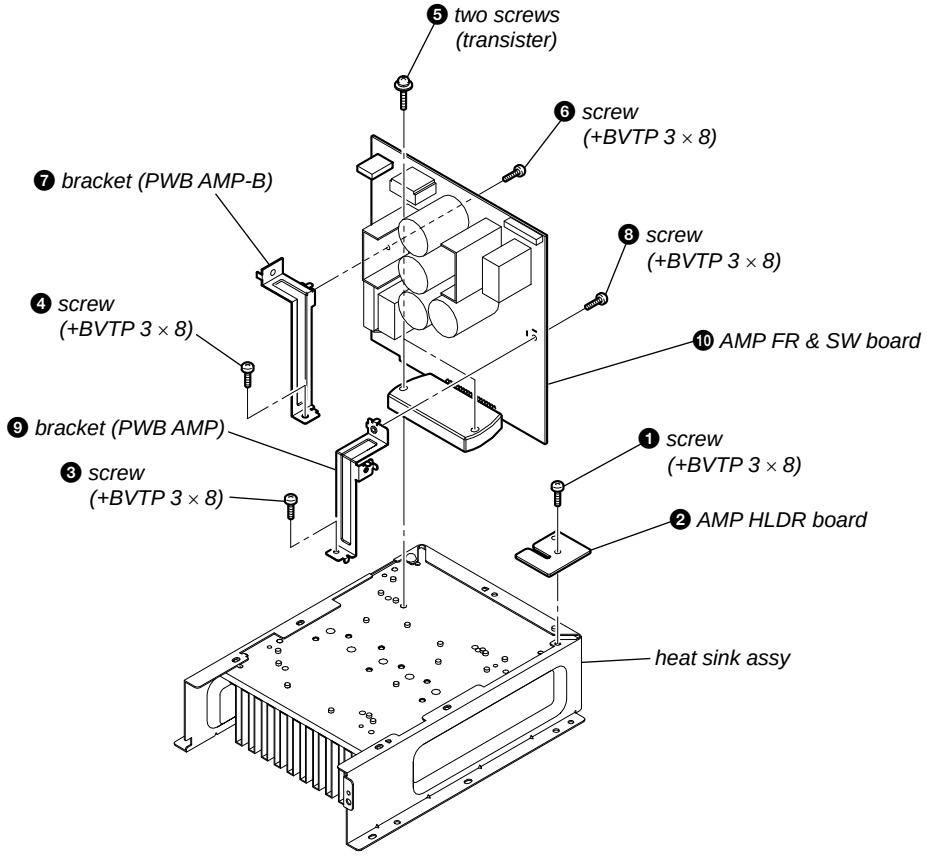
3-10. MAIN BOARD



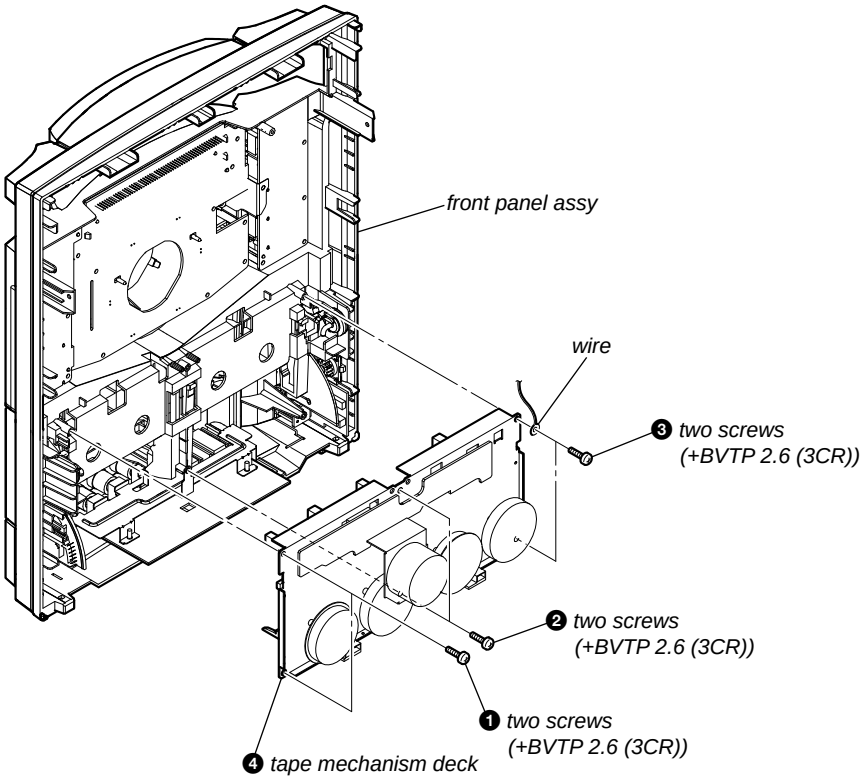
3-11. REGULATOR BOARD



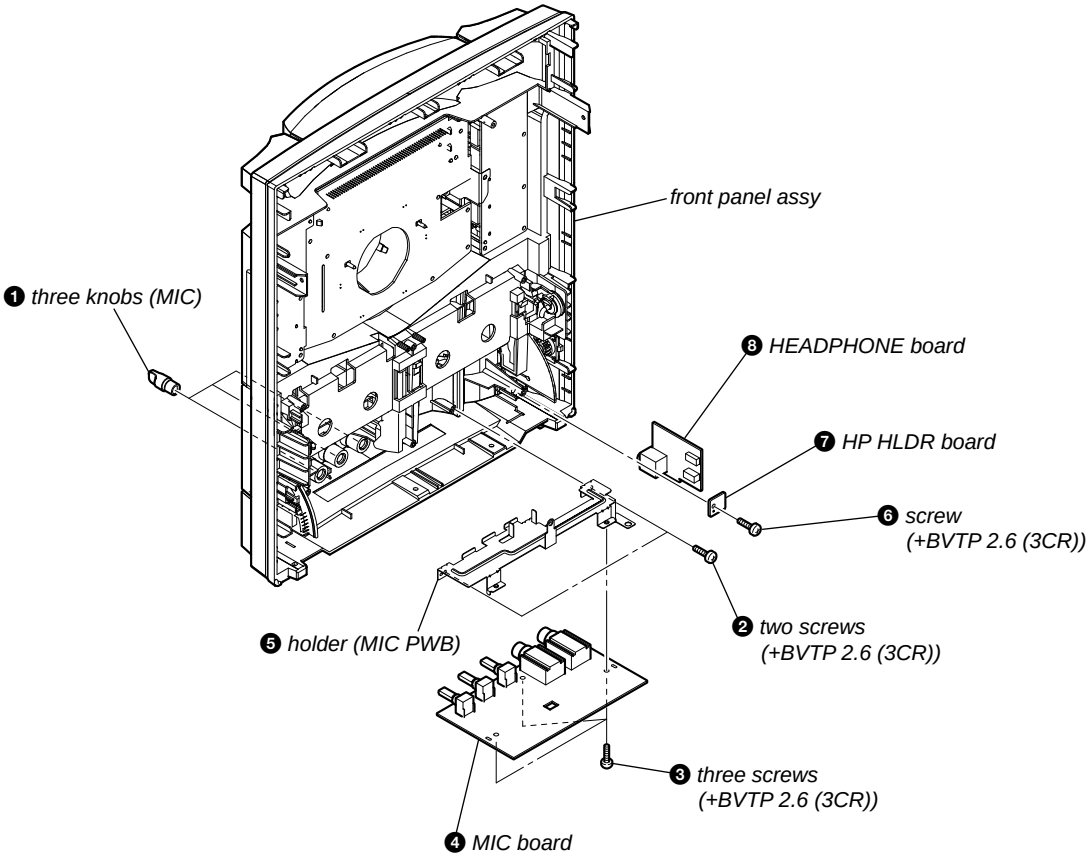
3-12. AMP FR & SW BOARD



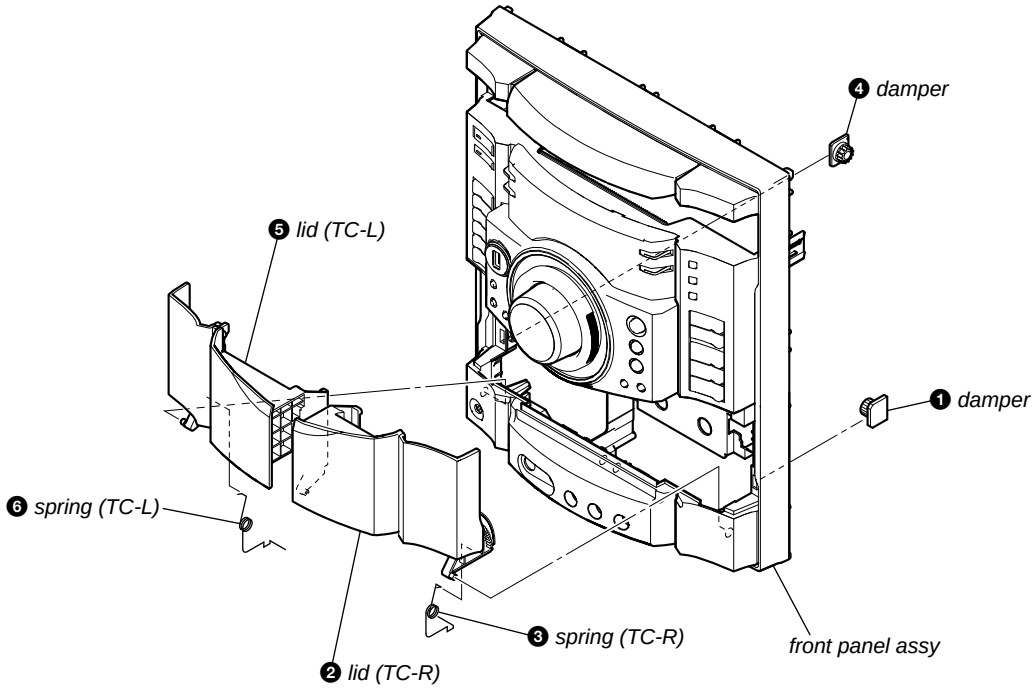
3-13. TAPE MECHANISM DECK



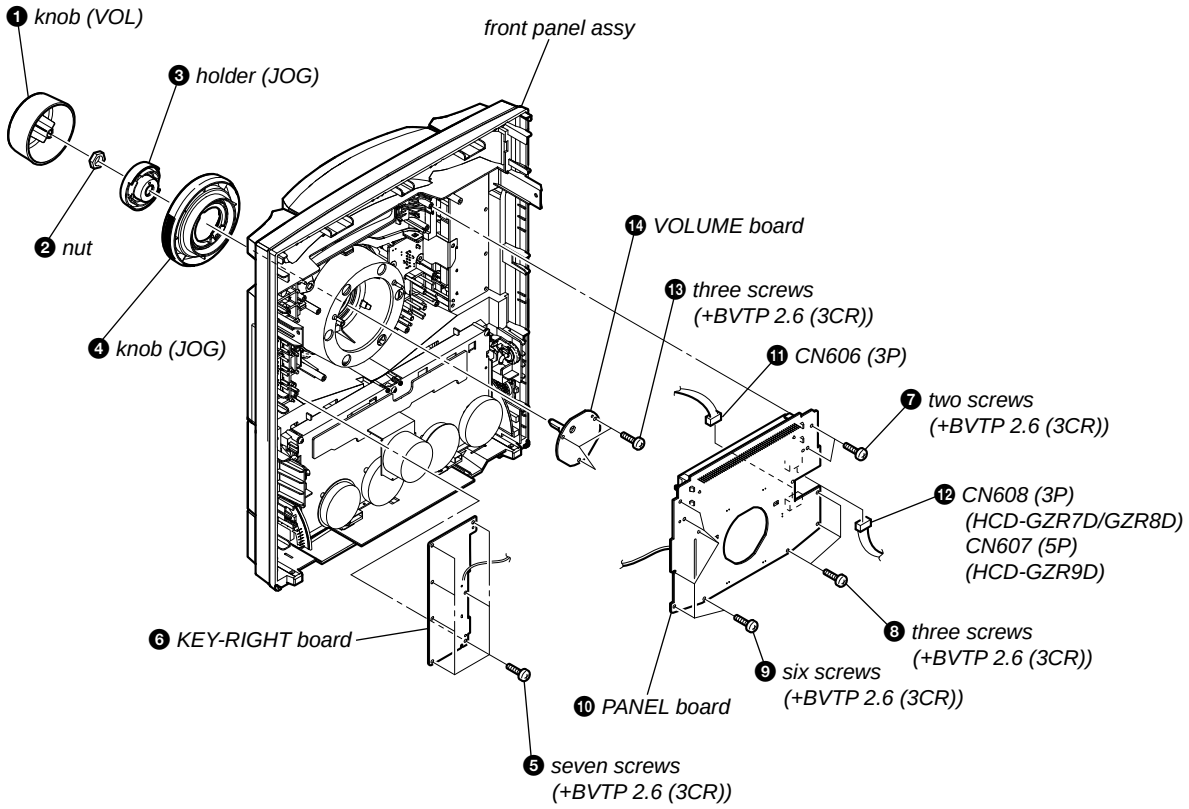
3-14. MIC BOARD, HEADPHONE BOARD



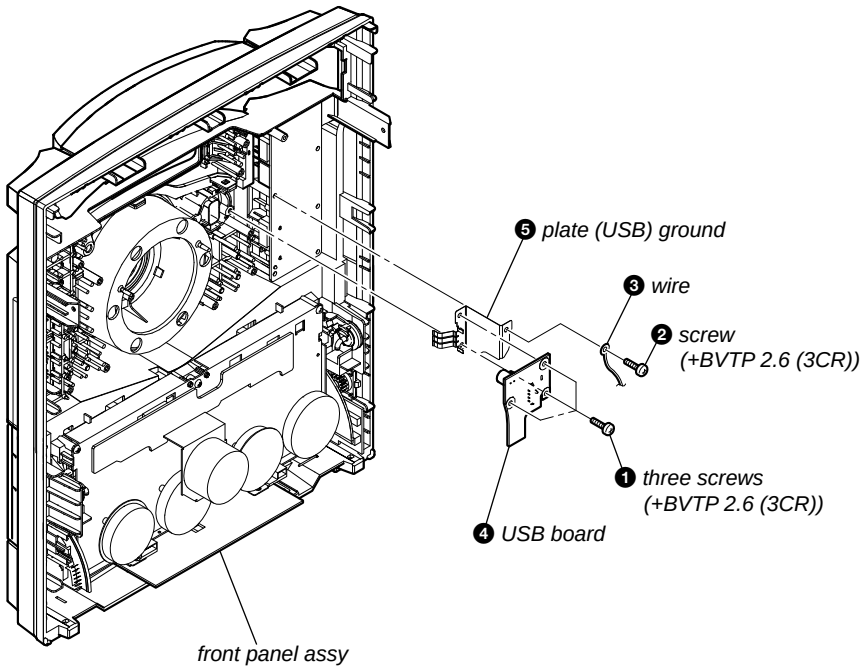
3-15. LID (TC-L), LID (TC-R)



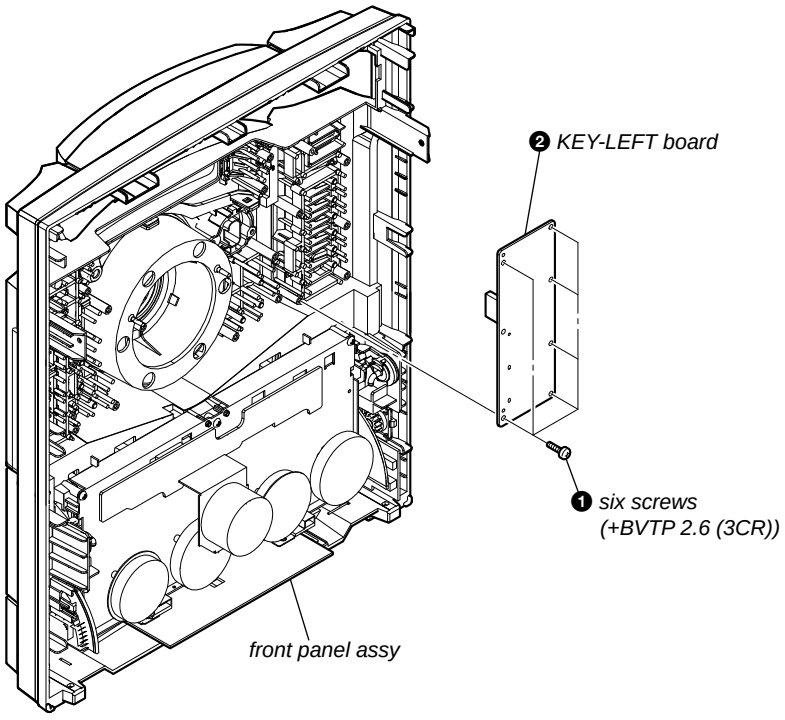
3-16. PANEL BOARD, VOLUME BOARD, KEY-RIGHT BOARD


❶ knob (VOL)
front panel assy
❸ holder (JOG)
❷ nut
❹ knob (JOG)
⓮ VOLUME board
⓭ three screws (+BVTP 2.6 (3CR))
⓫ CN606 (3P)
❼ two screws (+BVTP 2.6 (3CR))
⓬ CN608 (3P) (HCD-GZR7D/GZR8D) CN607 (5P) (HCD-GZR9D)
❽ three screws (+BVTP 2.6 (3CR))
❻ KEY-RIGHT board
❾ six screws (+BVTP 2.6 (3CR))
⓾ PANEL board
❺ seven screws (+BVTP 2.6 (3CR))

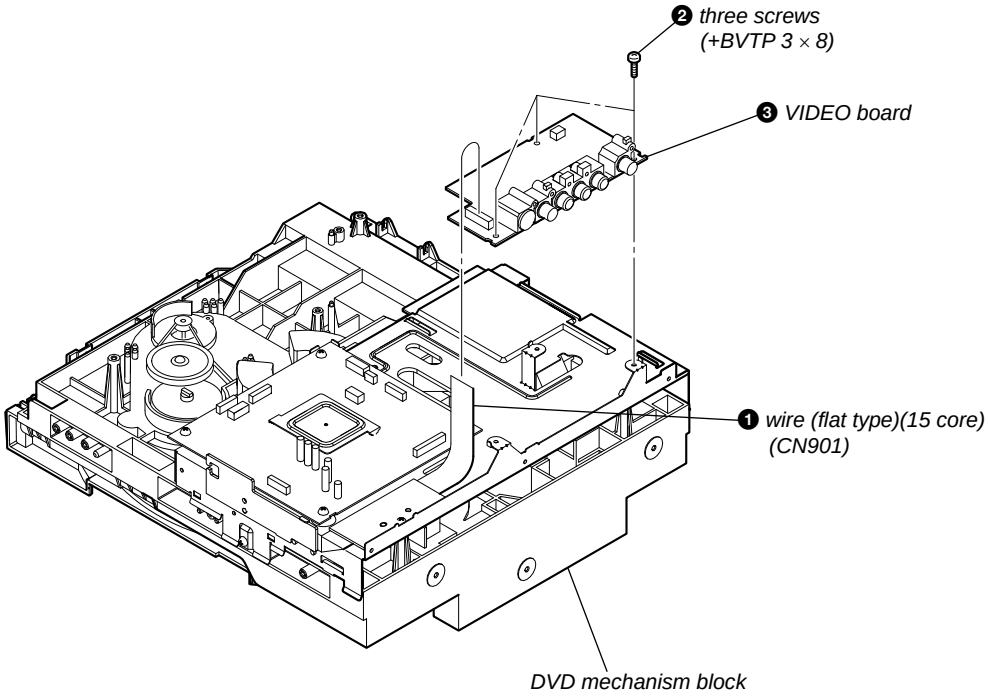
3-17. USB BOARD



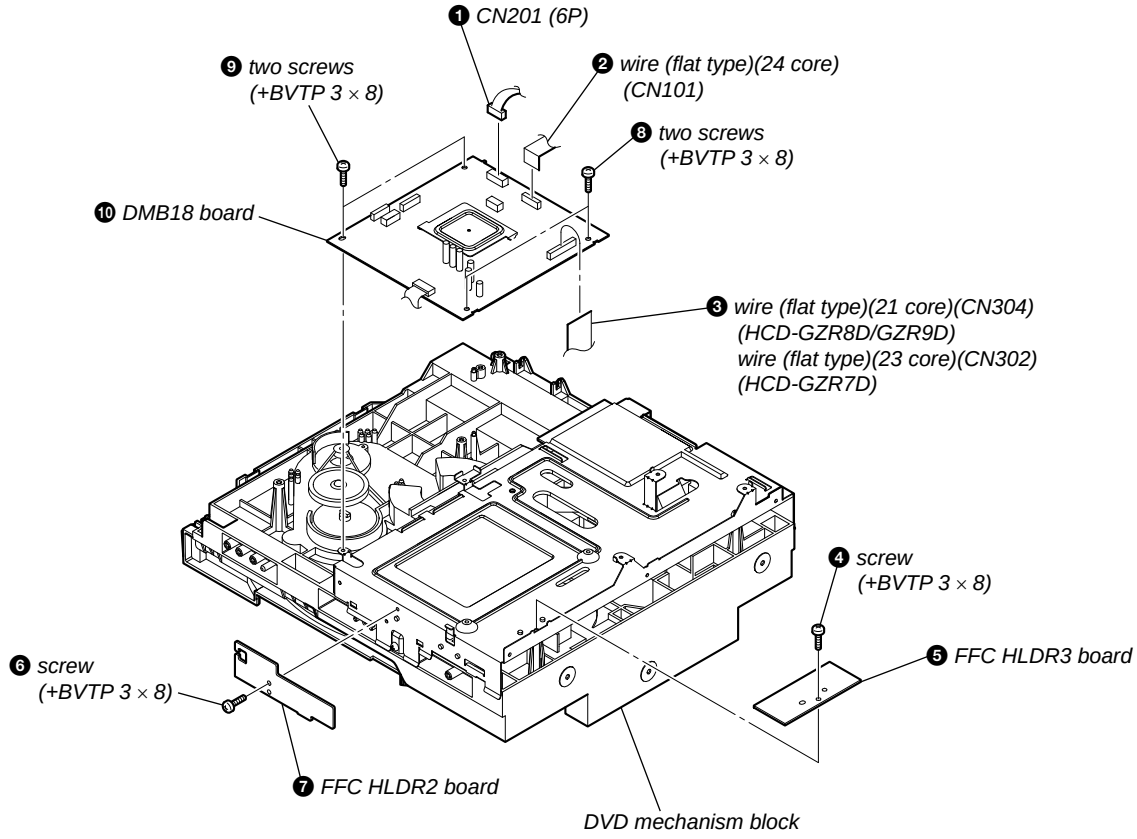
3-18. KEY-LEFT BOARD



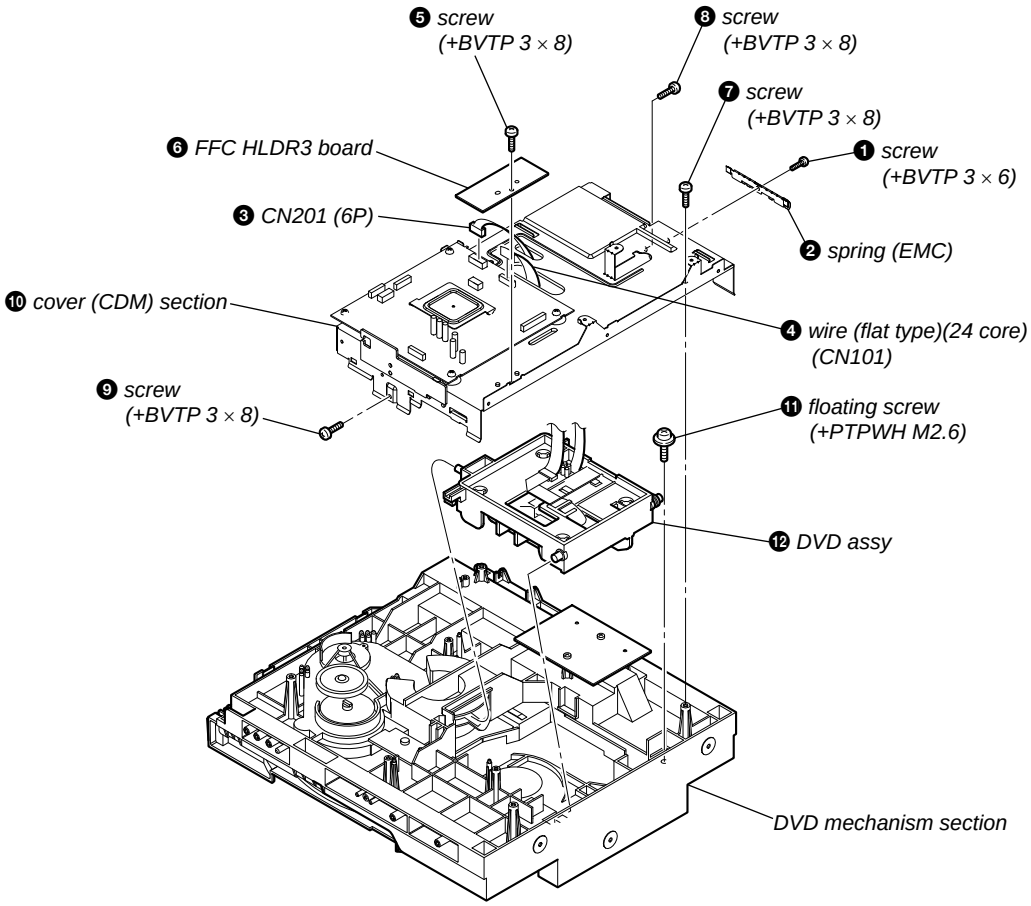
3-19. VIDEO BOARD



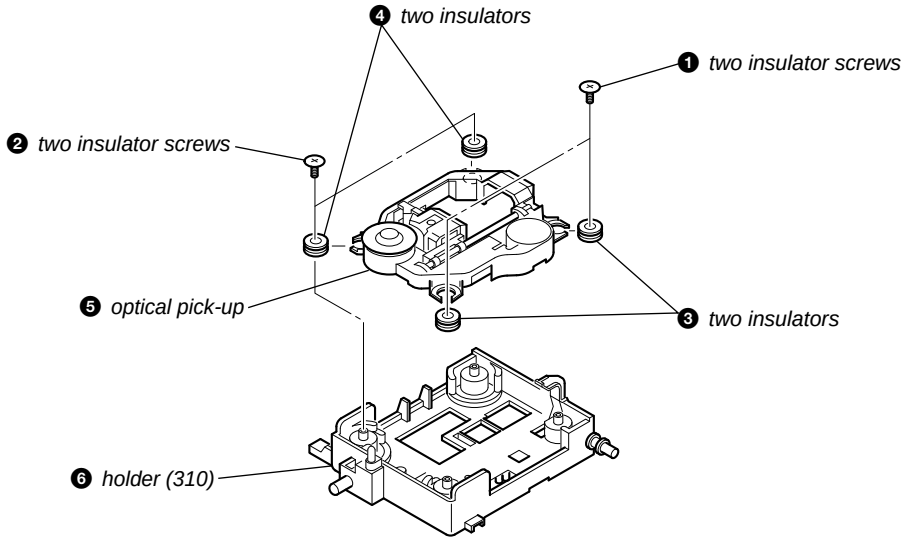
3-20. DMB18 BOARD



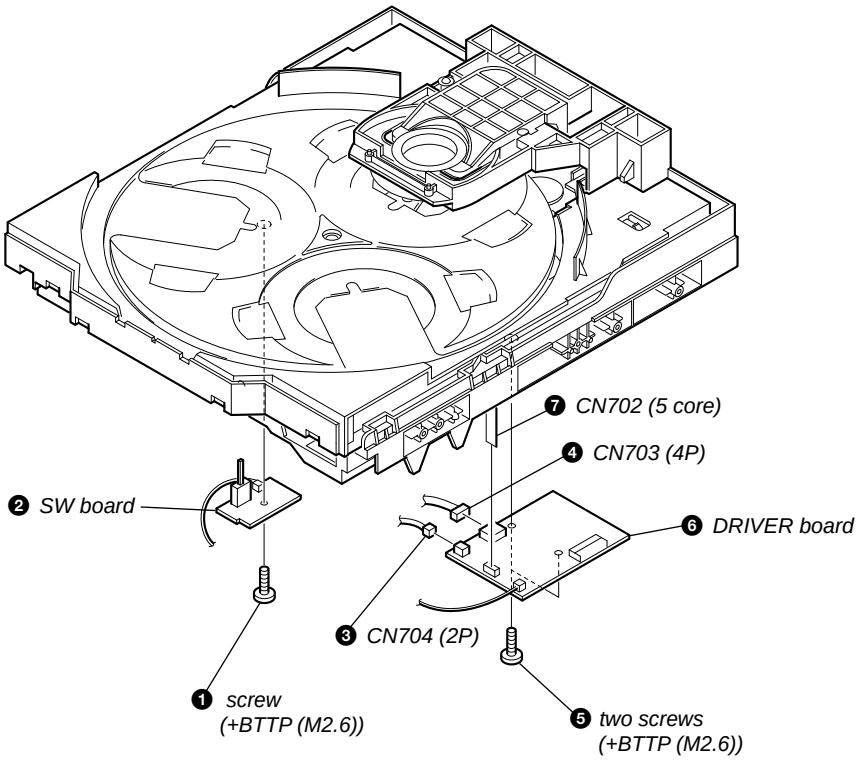
3-21. DVD ASSY


❺ screw (+BVTP 3 × 8)
❽ screw (+BVTP 3 × 8)
❼ screw (+BVTP 3 × 8)
❶ screw (+BVTP 3 × 6)
❻ FFC HLDR3 board
❸ CN201 (6P)
❷ spring (EMC)
❿ cover (CDM) section
❹ wire (flat type)(24 core) (CN101)
❾ screw (+BVTP 3 × 8)
⓫ floating screw (+PTPWH M2.6)
⓬ DVD assy
DVD mechanism section

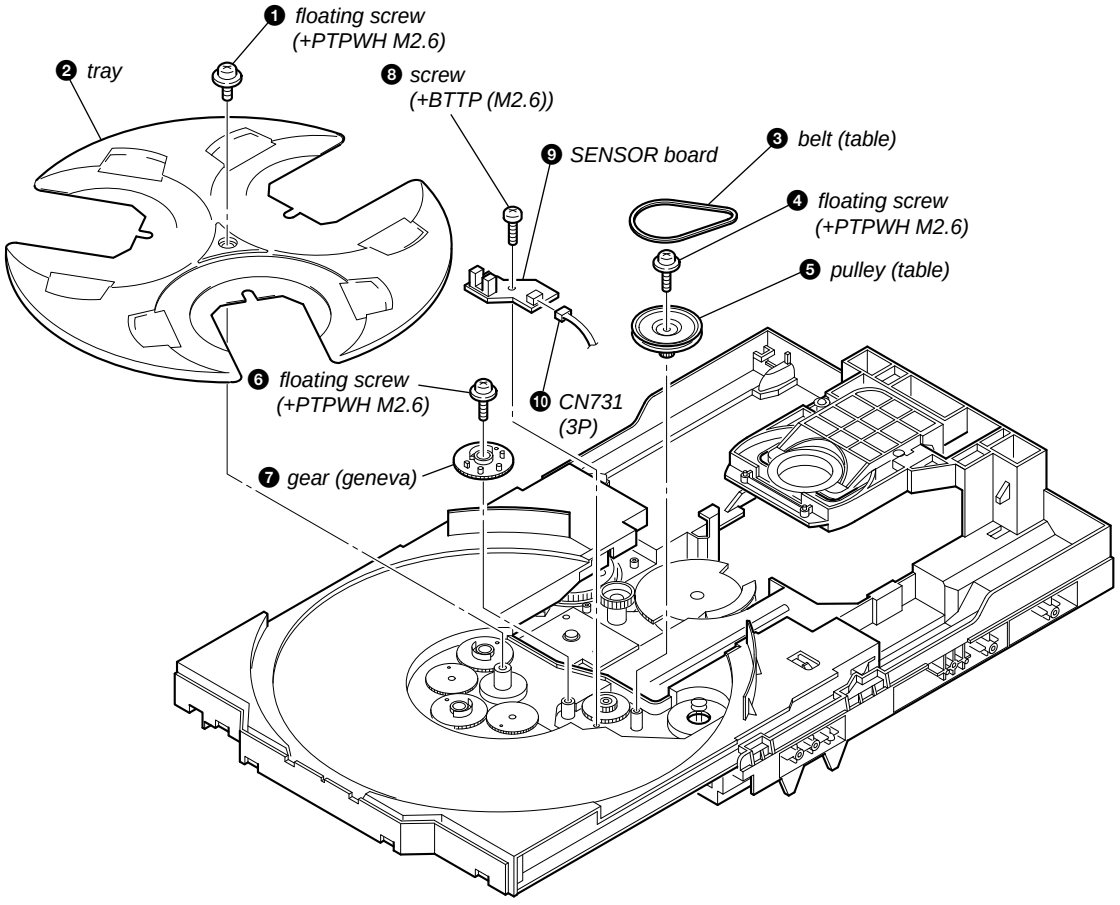
3-22. OPTICAL PICK-UP



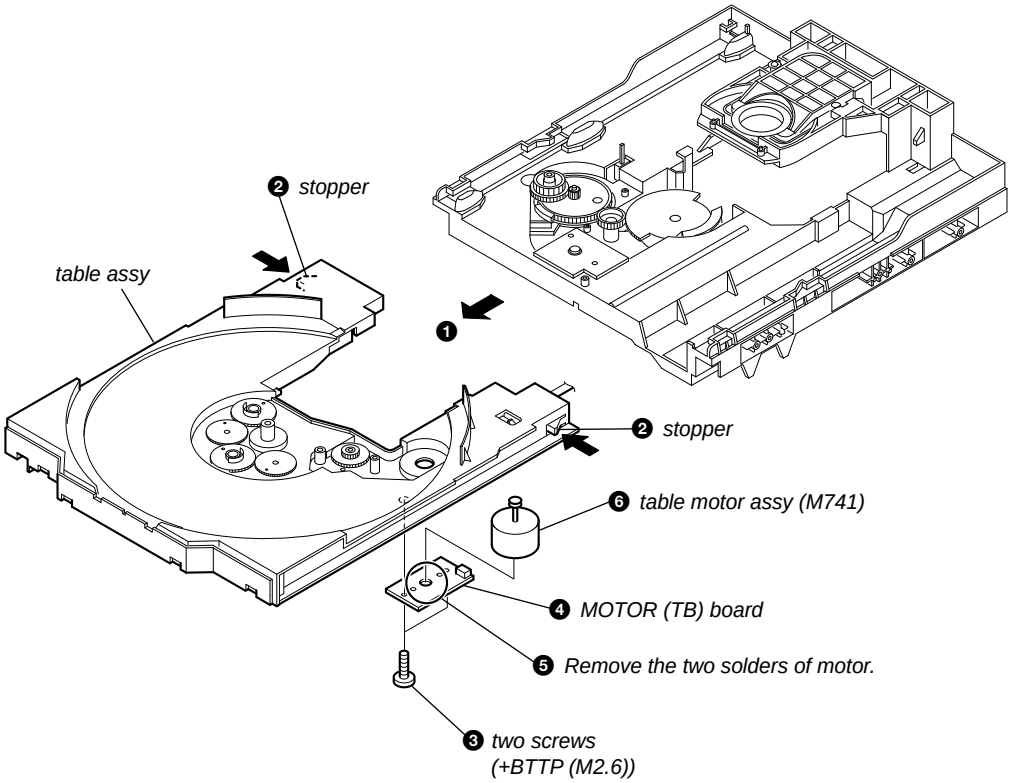
3-23. DRIVER BOARD, SW BOARD



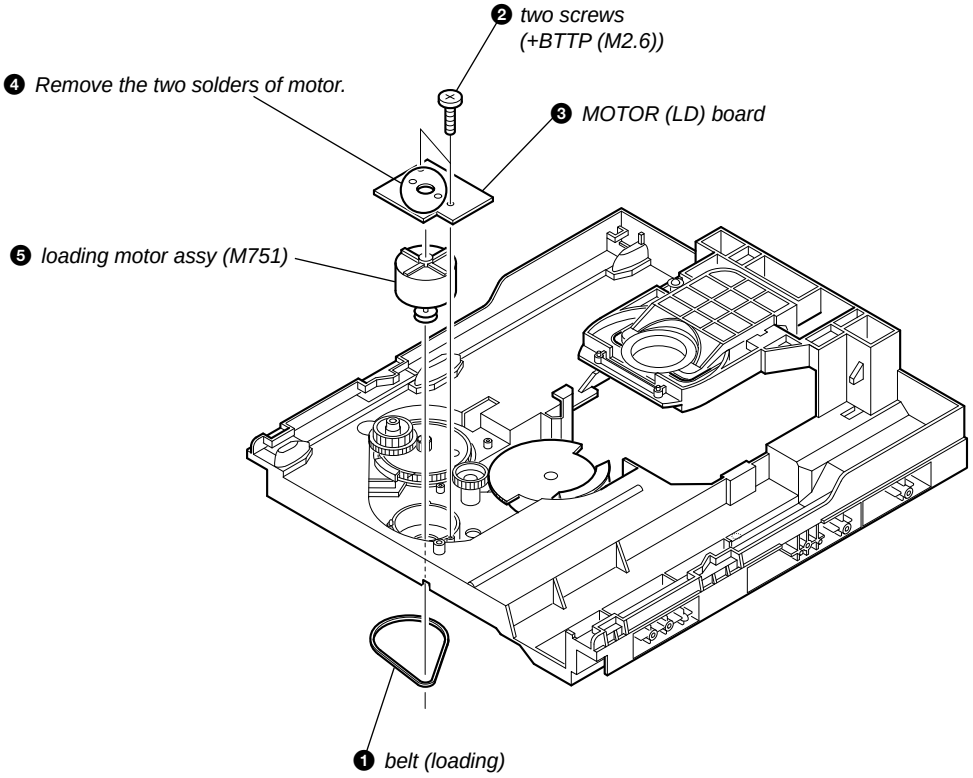
3-24. SENSOR BOARD



3-25. MOTOR (TB) BOARD



3-26. MOTOR (LD) BOARD



SECTION 4
TEST MODE

[COLD RESET]

- The cold reset clears all data including preset data stored in the RAM to initial conditions. Execute this mode when returning the set to the customer.

Procedure:

1. Press the [I/⏻] button to turn on the system.
2. Press [ILLUMINATION] button, [ENTER] button and [I/⏻] button simultaneously.
3. The message “COLD RESET” appears on the fluorescent indicator tube. Then, the fluorescent indicator tube becomes blank for a while, and the system is reset.

[COMMON TEST MODE]

- This mode is used to check operations of the respective section of Equalizer level, volume and VACS ON/OFF.

Procedure:

- **To enter Common Test Mode**

1. Press [I/⏻] button to turn on the system.
2. Press [■] button, [ILLUMINATION] button and [DISC 3] simultaneously.
3. The message “VACS0” appers on the fluorescent indicator tube.

- **Check of Equalizer Level**

1. Press [EQ BAND/MEMORY] button repeatedly until a message “ALL EQ MIN” appears on the fluorescent indicator tube. GEQ decreases to its minimum.
2. Press [EQ BAND/MEMORY] button repeatedly until a message “ALL EQ MAX” appears on the fluorescent indicator tube. GEQ increases to its maximum.
3. Press [EQ BAND/MEMORY] button repeatedly until a message “ALL EQ FLAT” appears on the fluorescent indicator tube. GEQ is set to flat.

- **Check of Volume**

1. When the [MASTER VOLUME] dial is turned counterclockwise even slightly, the sound volume increases to its maximum and message “VOLUME16” → “VOLUME MAX” appears on the fluorescent indicator tube.
2. When the [MASTER VOLUME] dial is turned clockwise even slightly, the sound volume decreases to its minimum and message “VOLUME16” → “VOLUME MIN” appears on the fluorescent indicator tube.

- **Check of VACS (Variable Attenuation Control System) ON/OFF Select**

1. Press [REC TO TAPE] button repeatedly until a message “VACS OFF” or “VACS ON” appears on the fluorescent indicator tube.

- **To release from Common Test Mode**

1. To release from this mode, press [I/⏻] button.
2. To cold reset is enforced at the same time.

[AMP TEST MODE]

- This mode is used to display the real time VACS level and check operations of the respective sections of Equalizer band and DBFB ON/OFF.

Procedure:

- **To enter AMP Test Mode**

1. Press [I/⏻] button to turn on the system.
2. Press [■] button, [EQ BAND/MEMORY] button and [REC TO USB] button simultaneously.
3. The message “AMP TEST IN” appers of the fluorescent indicator tube.

- **Check of VACS Display/AMP Adjustment Select**

1. Press [REC TO TAPE] button repeatedly until a message “V0 0 0” appears on the fluorescent indicator tube. “0” represents VACS level which is triggered by signal level.
2. Press [REC TO TAPE] button repeatedly until a message “D +6 +2 +4” appears on the fluorescent indicator tube. “+6” represents Equalizer Low level, “+2” represents Equalizer Mid level and “+4” represents Equalizer High level.

- **Check of Equalizer Band Select**

1. Press [EQ BAND/MEMORY] button repeatedly until a message “LOW +6 dB” appears on the fluorescent indicator tube. EQ Band is set to Low level.
2. Press [EQ BAND/MEMORY] button repeatedly until a message “MID +2 dB” appears on the fluorescent indicator tube. EQ Band is set to Middle level.
3. Press [EQ BAND/MEMORY] button repeatedly until a message “HIGH +4 dB” appears on the fluorescent indicator tube. EQ Band is set to High level.

- **Change of Equalizer Band**

1. Press [EQ BAND/MEMORY] button repeatedly until a message “LOW +6 dB” appears on the fluorescent indicator tube.
2. When the [OPERATION DIAL] ring is turned clockwise or counterclockwise even slightly, “LOW +6 dB” change to “LOW –8 dB” ⟷ “LOW +8 dB” appears on the fluorescent indicator tube.
3. Press [EQ BAND/MEMORY] button repeatedly until a message “MID +2 dB” appears on the fluorescent indicator tube.
4. When the [OPERATION DIAL] ring is turned clockwise or counterclockwise even slightly, “MID +2 dB” change to “MID –8 dB” ⟷ “MID +8 dB” appears on the fluorescent indicator tube.
5. Press [EQ BAND/MEMORY] button repeatedly until a message “HIGH +4 dB” appears on the fluorescent indicator tube.
6. When the [OPERATION DIAL] ring is turned clockwise or counterclockwise even slightly, “HIGH +4 dB” change to “HIGH –8 dB” ⟷ “HIGH +8 dB” appears on the fluorescent indicator tube.

- **Check of DBFB ON/OFF Select**

1. Press [OPTIONS] button repeatedly until a message “DBFB OFF” or “DBFB ON” appears on the fluorescent indicator tube.

- **To release from AMP Test Mode**

1. To release from this mode, press [■] button, [EQ BAND/MEMORY] button and [I/⏻] button simultaneously.

[TCM OFFLINE MODE]

- This mode prevents the system from tuning off automatically when TCM is not connected. Therefore, measurements can be done even when TCM is not connected during production.

Procedure:

1. Press [I/⏻] button to turn on the system. (SONY DEMO mode)
2. Press [SOUND FIELD] button, [EQ BAND/MEMORY] button and [I/⏻] button simultaneously. The system will turn on automatically.
3. The message “TCM OFFLINE” appers on the fluorescent indicator tube.

- **To release from TCM OFFLINE Mode**

1. To release from this model, press [I/⏻] button.

[PANEL TEST MODE]

- This mode is used to check the fluorescent indicator tube, LEDs, button, MASTER VOLUME dial OPERATION DIAL ring, system software version, DVD lib version, model name and destination.

Procedure:

1. Press [I/⏻] button to turn on the system.
2. Press [■] button, [ILLUMINATION] button and [DISC 2] button simultaneously.
3. Power illuminator LEDs and segment in fluorescent indicator tube are lighted up.
4. When you want to enter to the system software version display model, press [DISC 1] button. The system software version appears on the fluorescent indicator tube.
   Press [DISC 1] button again, the DVD lib version appears on the fluorescent indicator tube.
5. Press [DISC 2] button the key encode test mode is activated.
6. In the key encode test mode,the fluorescent indicator tube displays “KEY 0 0 0 0”.
   Each time a button pressed, cange the each numbers.
7. Press [DISC 3] button the mode name and destination on the fluorescent indicator tube.

- **To release from Panal Test Mode**

1. To release from this mode, press [■] button, [ILLUMINATION] button and [DISC 2] button simultaneously.

[DVD SHIP MODE (WITHOUT MEMORY CLEAR)]

- This mode moves the optical pick-up to the position durable to vibration. Use this mode when returning the set to the customer after repair.

Procedure:

1. Press [I/⏻] button to turn on the system.
2. Press [DVD] button, to set the “DVD NO DISC” mode.
3. press [◀▶] button and [I/⏻] button simultaneously. The system will turn off automatically.
4. After the “STANDBY” blinking display finishes, a message “LOCK” appears on the fluorescent indicator tube and the DVD ship mode is set.

- **To release from DVD Ship Mode**

1. To release from this model, press [I/⏻] button.

[DVD SHIP MODE (WITHOUT MEMORY CLEAR)]

- This mode moves the optical pick-up to the position durable to vibration and clears all data including preset data stored in the RAM to initial conditions after the power supply is turned off. Use this mode when returning the set to the customer after repair.

Procedure:

1. Press [I/⏻] button to turn on the system.
2. Press [DVD] button, to set the “DVD NO DISC” mode.
3. press [ENTER] button, [GROOVE] button and [I/⏻] button simultaneously.
4. After the “STANDBY” blinking display finishes, a message “COLD RESET” appears on the fluorescent indicator tube and the DVD ship mode is set.

- **To release from DVD Ship Mode**

1. To release from this model, press [I/⏻] button.

[DISC THEFT PREVENTION MODE]

- This mode let you lock the disc tray. When this mode is activated, the disc tray will not open.

Procedure:

1. Press [I/⏻] button to turn on the system.
2. Press [DVD] button.
3. Press [■] button and [⏏ OPEN/CLOSE] button simultaneously and hold down until “LOCKED” or “UNLOCKED” appers on the fluorescent indicator tube (around 5 seconds).

- **To release from Disc Theft Prevention Mode**

1. To release from this model, press [I/⏻] button.

[DVD COLOR SYSTEM MODE]

- This mode let you change the color system of the video output from PAL to NTSC or vice-versa.

Procedure:

1. Press [I/⏻] button to turn on the system.
2. Press [DVD] button.
3. Press [I/⏻] button to turn off the system.
4. Press [❚❚] button and [I/⏻] button simultaneously. The system will turn off automatically.
5. The message “COLOR PAL” or “COLOR NTSC” appears on the fluorescent indicator tube.

- **To release from DVD Color System Mode**

1. To release from this model, press [I/⏻] button.

[DVD FIRMWARE VERSION MODE]

- This mode is used to display the DVD firmware version.

Procedure:

1. Press [I/⏻] button to turn on the system.
2. Press [DVD] button.
3. Press [■] button and [I/⏻] button simultaneously.
4. The version of DVD firmware appears on the on-screen display on TV.

- **To release from DVD Firmware Version Mode**

1. To release from this mode, press [I/⏻] button.

[DVD REBOOT AVOIDANCE MODE]

• This mode is used to display the DVD Reboot Avoidance.

Procedure:

1. Press [I/⏻] button to turn on the system.
2. Press [DVD] button.
3. Press [DVD] button, [■] button and [DISC 3] button simultaneously.
4. The message “MTK DBG” appears on the fluorescent indicator tube.

• To release from DVD Reboot Avoidance Mode

1. To release from this mode, press [I/⏻] button.

[AM TUNER STEP CHAGE]

• The step interval of AM channels can be toggled between 9 kHz and 10 kHz.

Procedure:

1. Press [I/⏻] button to turn off the system.
2. Press [TUNER/BAND] button repeatedly to select the “AM”.
3. Press [I/⏻] button to turn on the system.
4. Press [TUNING +] button and [I/⏻] button simultaneously. The system will turn on automatically.
5. The message “AM 9k STEP” or “AM 10k STEP” appears on the fluorescent indicator tube and thus the channel step change.

[VIDEO/SAT FUNCTION CHANGE]

• This mode let you change from VIDEO to SAT and vice-versa.

Procedure:

1. Press [I/⏻] button to turn on the system.
2. Press [VIDEO/SAT] button.
3. Press [VIDEO/SAT] button and [I/⏻] button simultaneously. The function will change to SAT. Press the same button again to change from SAT to VIDEO.

[DVD SERVICE MODE]

• This mode let you make diagnosis and adjustment easily by using the remote commander and the TV. The instructions, diagnostic results, etc. are given on the on-screen display.

• TEST DISC LIST

Be sure to use the DVD disc that matches the signal standards of your region.

• CD

YEDS-18 (Part No.: 3-702-101-01)
PATD-012 (Part No.: 4-225-203-01)

• DVD SL (Single Layer)

NTSC : HLX-503 (Part No.: J-6090-069-A)
HLX-504 (Part No.: J-6090-088-A)
PAL : HLX-506 (Part No.: J-6090-077-A)

• DVD DL (Dual Layer)

NTSC : HLX-501 (Part No.: J-6090-071-A)
HLX-505 (Part No.: J-6090-089-A)
PAL : HLX-507 (Part No.: J-6090-078-A)

• Procedure to enter to DVD Service Mode:

1. Press [I/⏻] button to turn on the system.
2. Press [DVD] butoon.
3. Press [■] button and [⏏ OPEN/CLOSE] button simultaneously and then turn the [MASTER VOLUME] dial clockwise.
4. The message “SERVICE IN” appears on the fluorescent indicator tube and the Top Menu of Remocon Diagnosis Menu appears on the on-screen display on the TV. The model name, main unit’s micom version information (IF-con) and DVD firmware version information (Syscon) are displayed at the bottom of the on-screen display.

```
Remocon Diagnosis Menu

0. External Chip Check
1. Servo Parameter Check
2. Drive Manual Operation
3. Emergency History
4. Version Information


Model Name   : SSX2D_ME
IF-con       : Ver.  01.00 (0000)
Syscon       : Ver.  1.200
```

5. To execute each function, press its number by using numeric button on the remote commander.
6. To release from this mode, press [I/⏻] button to turn off the system.

• Execute IOP Measurement

In order to execute IOP measurement, the following standard procedures must be followed.

1. From the Top Menu of Remocon Diagnosis Menu, select “2. Drive Manual Operation” by pressing the [2] button on the remote commander. The following screen appears on the on-screen display.

```
Drive Manual Operation

1. Servo Control
2. Track/Layer Jump
3. Manual Adjustment
4. Mecha test mode
5. MIRR time Adjust
0. Return to Top Menu
```

2. Select “3. Manual Adjustment” by pressing the [3] button on the remote commander. The following screen appears on the on-screen display.

```
Manual Adjust

1. Track Balance Adjust:
2. Track Gain Adjust:
3. Focus Balance Adjust:
4. Focus Gain Adjust:
5. Eg Boost Adjust:
6. Iop:
7. TRV. Level:
8. S curve (FE) Level:
9. RFL (PI) Level:
0. MIRR Time:

↑↓ Change Value
RETURN Return to previous menu
```

3. Select “6. Iop:” by pressing [6] button on the remote commander.
4. Wait until a hexadecimal number appears in the on-screen display as below:

```
Manual Adjust

1. Track Balance Adjust:
2. Track Gain Adjust:
3. Focus Balance Adjust:
4. Focus Gain Adjust:
5. Eg Boost Adjust:
6. Iop. ED
7. TRV. Level:
8. S curve (FE) Level:
9. RFL (PI) Level:
0. MIRR Time:

[↑][↓] Change Value
[RETURN] Return to previous menu
```

5. Convert data from hexadecimal to decimal by using conversion table.
6. Please find the label on the rear of the BU (Base Unit). The default IOP value is written in the label.
7. Subtract between these two values.
8. If the remainder is smaller than 93 (decimal), then it is OK. However if the value is higher than 93, then the BU is defective and need to be change.
9. Press [RETURN] button on the remote commander to return to previous menu.
10. Press [0] button on the remote commander to return to the Top Menu of Remocon Diagnosis Menu.
11. Press [I/⏻] button to turn off the system.

- **Check Emergency History**

  To check the emergency history, please follow the following procedure.

1. From the Top Menu of Remocon Diagnosis Menu, select “3. Emergency History” by pressing the [3] button on the remote commander. The following screen appears on the on-screen display.

```
Emg. History Check

Laser Hours        CD     999h      59min
                   DVD    999h      59min

1.  01  05  04  04        00  92  46  00
    00  00  00  00        00  00  23  45
2.  02  02  01  01        00  A9  4B  00
    00  00  00  00        00  00  23  45

[Next] Next Page   [Prev] Prev Page
[O] Return to Top Menu
```

2. You can check the total time when the laser is turned on during playback of DVD and CD from the above menu. The maximum time, which can be displayed are 999h 59min.
3. You can check the error code of latest 10 emergency history from the above menu. To view the previous or next page of emergency history, press [I◀◀] or [▶▶I] on the remote commander. The error code consists of

- **Error Code**

```
Example of Error code

1. [01] 05  04  04        00  92  46  00
    00  00  00  00        00  00  23  45
```

The meaning of error code is as below:
01: Communication error (No reply from syscon)
02: Syscon hung up
03: Power OFF request when syscon hung up
19: Thermal shutdown
24: MoveSledHome error
25: Mechanical move error (5 Changer)
26: Mechanical move stack error
30: DC motor adjustment error
31: DPD offset adjustment error
32: TE balance adjustment error
33: TE sensor adjustment error
34: TE loop gain adjustment error
35: FE loop gain adjustment error
36: Bad jitter after adjustment
40: Focus NG
42: Focus layer jump NG
52: Open kick spindle error
51: Spindle stop error
60: Focus on error
61: Seek fail error
62: Read Q data/ID error
70: Lead in data read fail
71: TOC read time out (CD)
80: Can’t buffering
81: Unknown media type

- **Parameter of error code**

  This is the detail of error code.

```
Example of Error code

1.  01 [05  04  04        00  92  46  00]
   [00  00  00  00        00  00] 23  45
```

- **Time of error code**

  This is the laser time when an error occurred.

```
Example of Error code

1.  01  05  04  04        00  92  46  00
    00  00  00  00        00  00 [23  45]
```

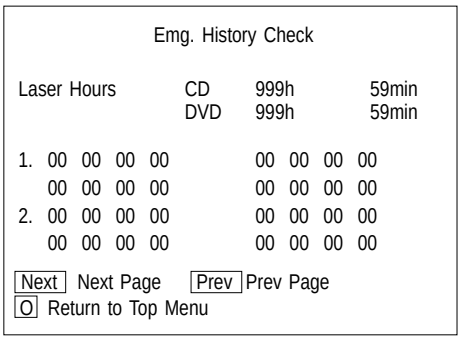
To clear the Laser Hours

Press [▭DISPLAY] button and then press [CLEAR] button. The data for both CD and DVD data are reset.

```
Emg. History Check

Laser Hours        CD     0h        0min
                   DVD    0h        0min

1.  01  05  04  04        00  92  46  00
    00  00  00  00        00  00  23  45
2.  02  02  01  01        00  A9  4B  00
    00  00  00  00        00  00  23  45

[Next] Next Page   [Prev] Prev Page
[O] Return to Top Menu
```

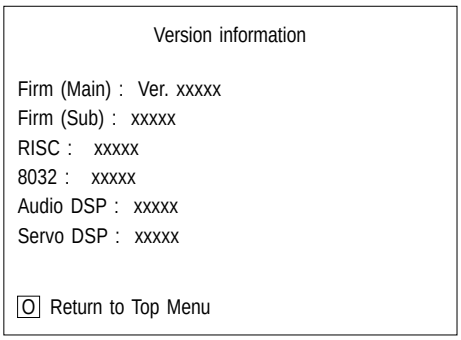
To clear the Emergency History

Press [DVD TOP MENU] button and then press [CLEAR] button.
The error code for all emergency history would be reset.


Emg. History Check
Laser Hours CD 999h 59min
DVD 999h 59min
1. 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00
2. 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00
Next Next Page Prev Prev Page
O Return to Top Menu

To clear the Initialize Setup Data

Press [DVD/TUNER MENU] button and then press [CLEAR] button on the remote commander.

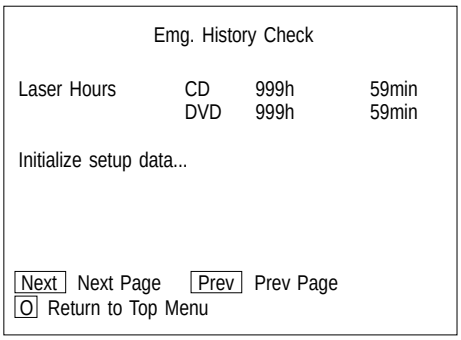


To return to the Top Menu of Remocon Diagnosis Menu

Press [0] button on the remote commander.

- **Check Version Information**
  To check the version information, please follow the following procedure.

1. From the Top Menu of Remocon Diagnosis Menu, select “4. Version Information” by pressing the [4] button on the remote commander. The following screen appears on the on-screen display.


Emg. History Check
Laser Hours CD 999h 59min
DVD 999h 59min
Initialize setup data...
Next Next Page Prev Prev Page
O Return to Top Menu

   To return to the Top Menu of Remocon Diagnosis Menu, press [0] on the remote commander.

SECTION 5
MECHANICAL ADJUSTMENTS

Precaution

1. Clean the following parts with a denatured alcohol-moistened swab:
   record/playback heads — pinch rollers
   erase head — rubber belts
   capstan — idlers
2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement

Mode	Torque meter	Meter reading
FWD	CQ-102C	3.06 N • m to 6.96 N • m 31 to 71 g • cm (0.43 – 0.98 oz • inch)
FWD back tension	CQ-102C	0.19 N • m to 0.58 N • m 2 to 6 g • cm (0.02 – 0.08 oz • inch)
REV	CQ-102RC	3.06 N • m to 6.96 N • m 31 to 71 g • cm (0.43 – 0.98 oz • inch)
REV back tension	CQ-102RC	0.19 N • m to 0.58 N • m 2 to 6 g • cm (0.02 – 0.08 oz • inch)
FF/REW	CQ-201B	6.96 N • m to 14.02 N • m 71 to 143 g • cm (0.98 – 1.99 oz • inch)
FWD tension	CQ-403A	9.80 N • m 100 g or more (3.53 oz or more)
REV tension	CQ-403R	9.80 N • m 100 g or more (3.53 oz or more)

SECTION 6
ELECTRICAL ADJUSTMENTS

DVD SECTION

When the optical pick-up assy is replaced, perform the "Execute IOP Measurement".

Execute IOP Measurement (See page 35)

[TEST DISC LIST]

Be sure to use the DVD disc that matches the signal standards of your region.

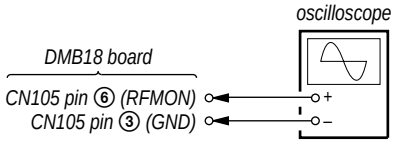
• CD
- YEDS-18 (Part No.: 3-702-101-01)
- PATD-012 (Part No.: 4-225-203-01)

• DVD SL (Single Layer)
- NTSC : HLX-503 (Part No.: J-6090-069-A)
- HLX-504 (Part No.: J-6090-088-A)
- PAL : HLX-506 (Part No.: J-6090-077-A)

• DVD DL (Dual Layer)
- NTSC : HLX-501 (Part No.: J-6090-071-A)
- HLX-505 (Part No.: J-6090-089-A)
- PAL : HLX-507 (Part No.: J-6090-078-A)

[RFMON Level Check]

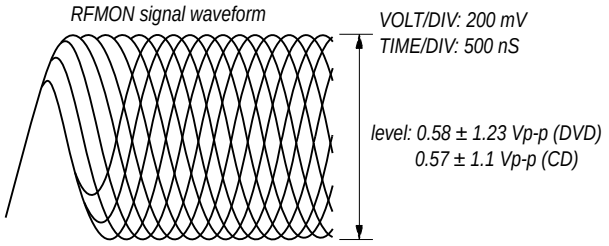
Connection:



Procedure:

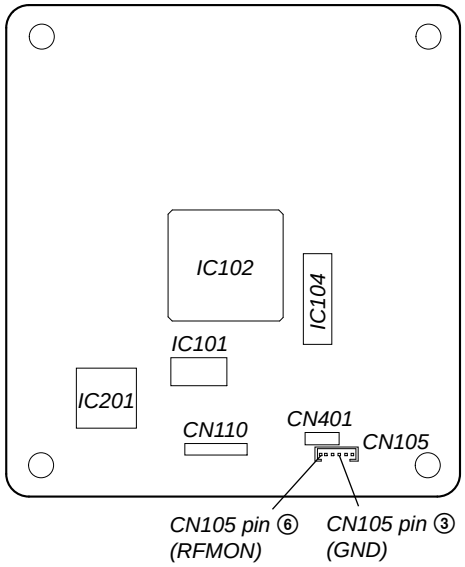
1. Connect an oscilloscope to CN105 pin ⑥ (RFMON) and CN105 pin ③ (GND) on the DMB18 board.
2. Turn the power on.
3. Set the test disc (refer to the TEST DISC LIST) on the tray and press [◀▶] button to playback.
4. Confirm that oscilloscope waveform is clear and check RFMON signal level is correct or not.

Note: A clear RFMON signal waveform means that the shape "◊" can be clearly distinguished at the center of the waveform.



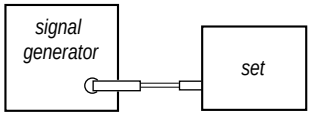
Checking Location: DMB18 board (Side A)

【DMB18 BOARD】(SIDE A)



TUNER SECTION

FM Tune Level Check



Procedure:

1. Turn on the set.
2. Input the following signal from signal generator to FM antenna input directly.

Carrier frequency: A = 87.5 MHz, B = 98 MHz, C = 108 MHz

Deviation : 75 kHz
Modulation : 1 kHz
ANT input : 35 dBμ (EMF)

Note: Use 75 ohm coaxial cable to connect signal generator and the set.
You cannot use video cable for checking.
Use signal generator whose output impedance is 75 ohm.

3. Set to FM tuner function and tune A, B and C signals.
4. Confirm "TUNED" is lit on the display for A, B and C signals.

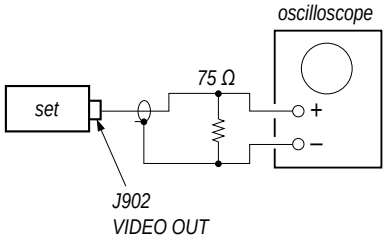
When the selected station signal is received in good condition, "TUNED" is displayed.

VIDEO SECTION

Video Level Check (VIDEO BOARD)

Purpose

This adjustment is made to satisfy the NTSC standard, and if not adjusted correctly, the brightness will be too large or small.



Procedure:

1. Connect oscilloscope to VIDEO outjack.
2. Load a DVD reference disc playback.
3. Check the video signal level is 1.00±0.07Vp-p.

DECK SECTION

0 dB = 0.775V

1. Demagnetize the record/playback head with a head demagnetizer.
2. Do not use a magnetized screwdriver for the adjustments.
3. After the adjustments, apply suitable locking compound to the parts adjust.
4. The adjustments should be performed with the rated power supply voltage unless otherwise noted.
5. The adjustments should be performed in the order given in this service manual. (As a general rule, playback circuit adjustment should be completed before performing recording circuit adjustment.)
6. The adjustments should be performed for both L-CH and R-CH.
7. Switches and controls should be set as follows unless otherwise specified.

• Test Tape

Tape	Signal	Used for
P-4-A063	6.3 kHz, –10 dB	Azimuth Adjustment

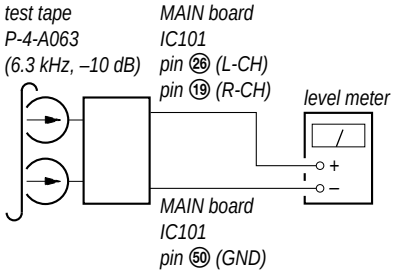
Record/Playback Head Azimuth Adjustment

DECK A DECK B

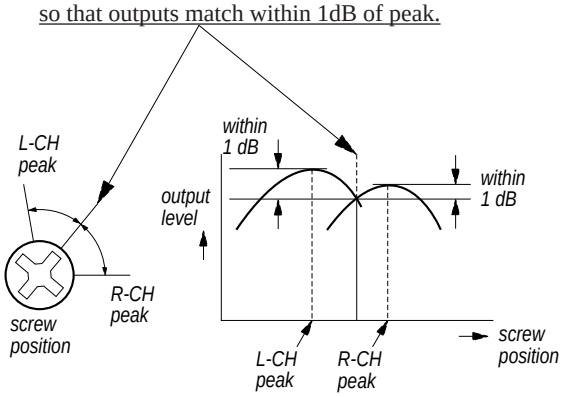
Note: Perform this adjustments for both decks

Procedure:

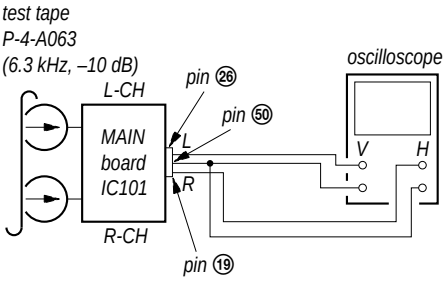
1. Mode: Playback

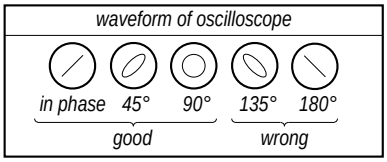


2. Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw
   so that outputs match within 1dB of peak.



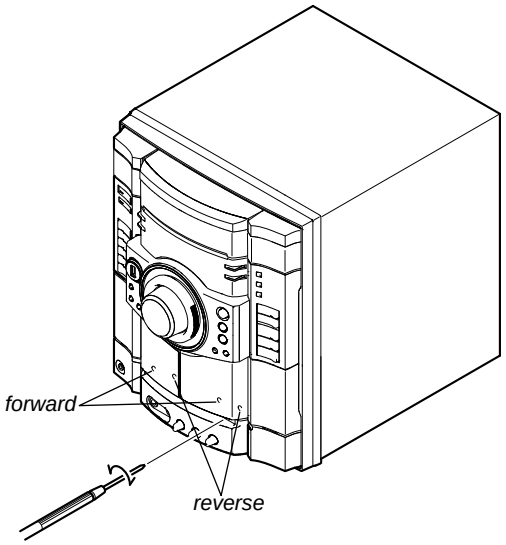
3. Mode: Playback





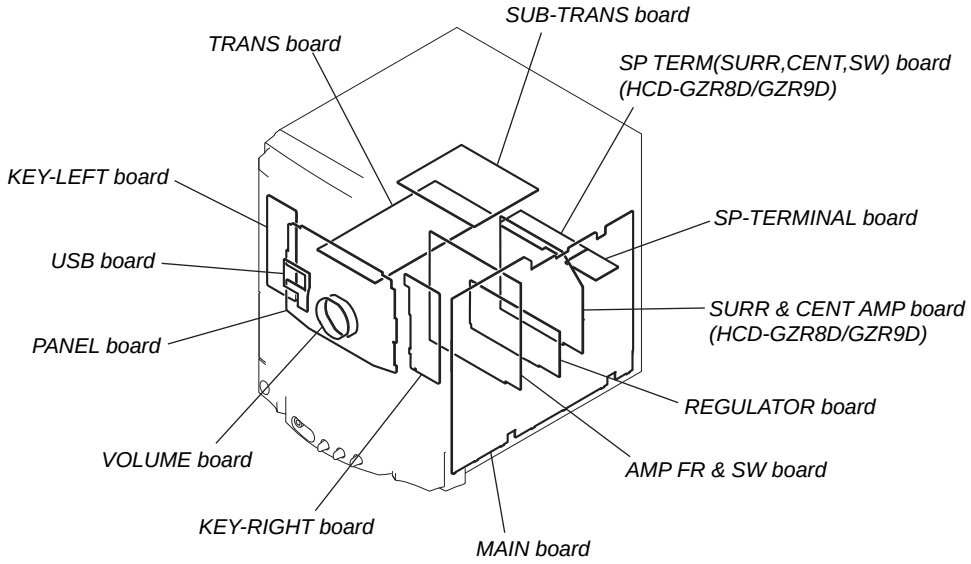
4. After the adjustments, apply suitable locking compound to the pats adjusted.

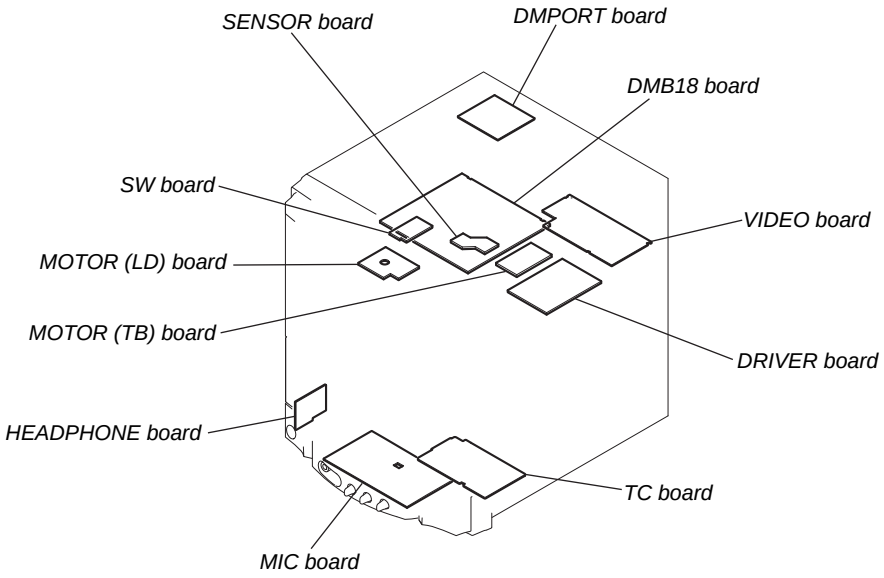
Adjustment Location: Playback Head (Deck A)
Record/Playback/Erase Head (Deck B)



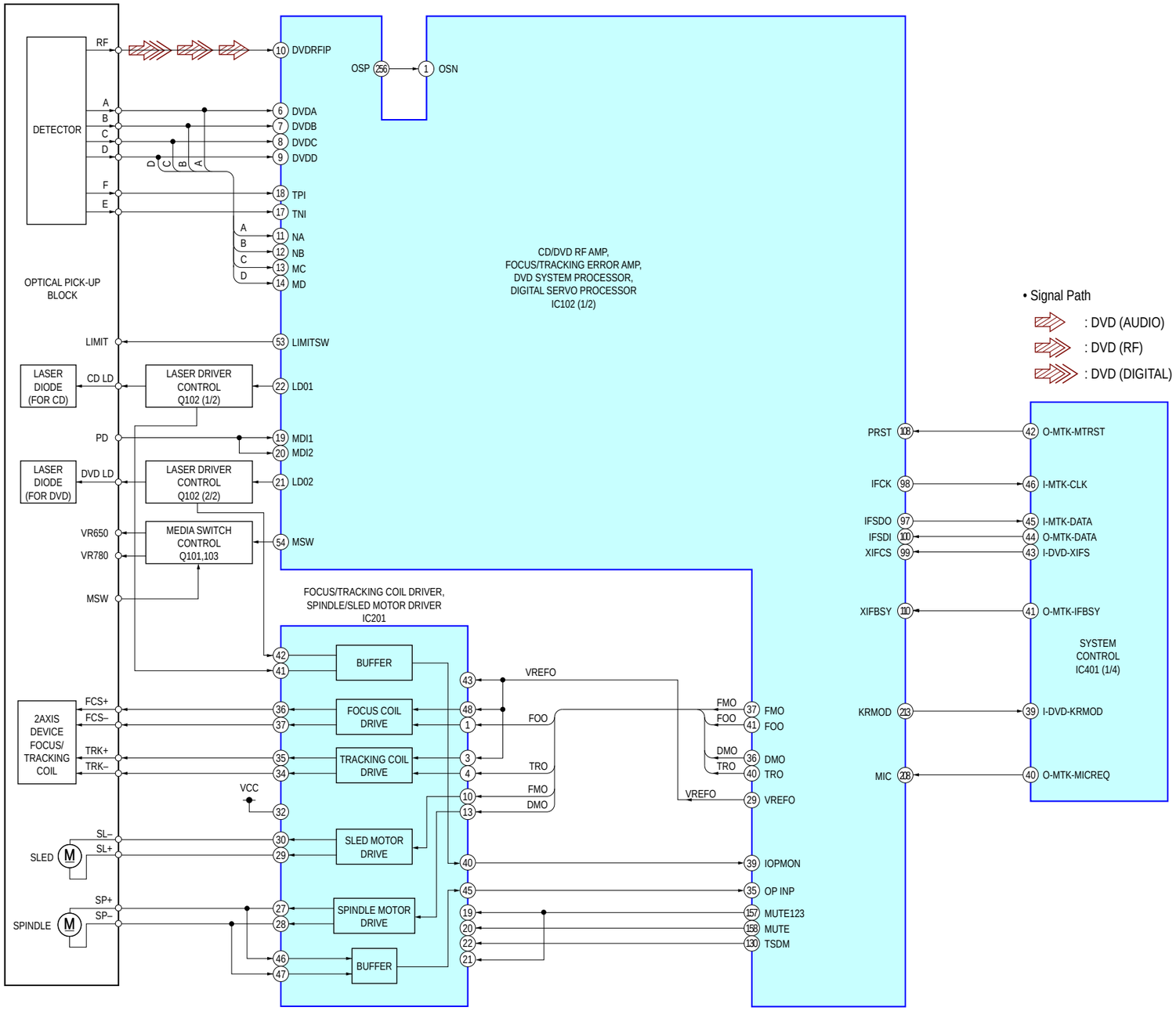
SECTION 7
DIAGRAMS

- **Circuit Boards Location**

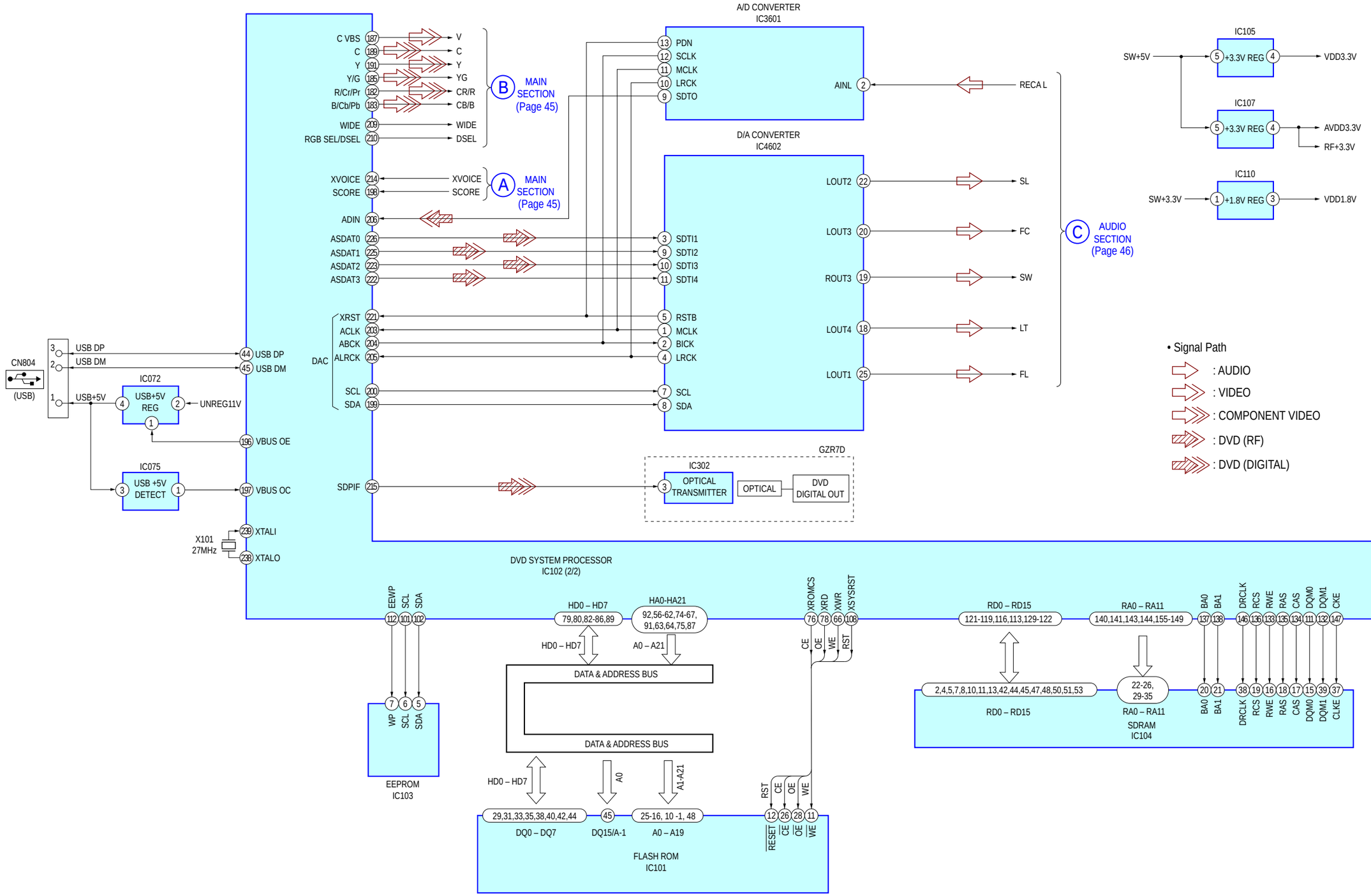




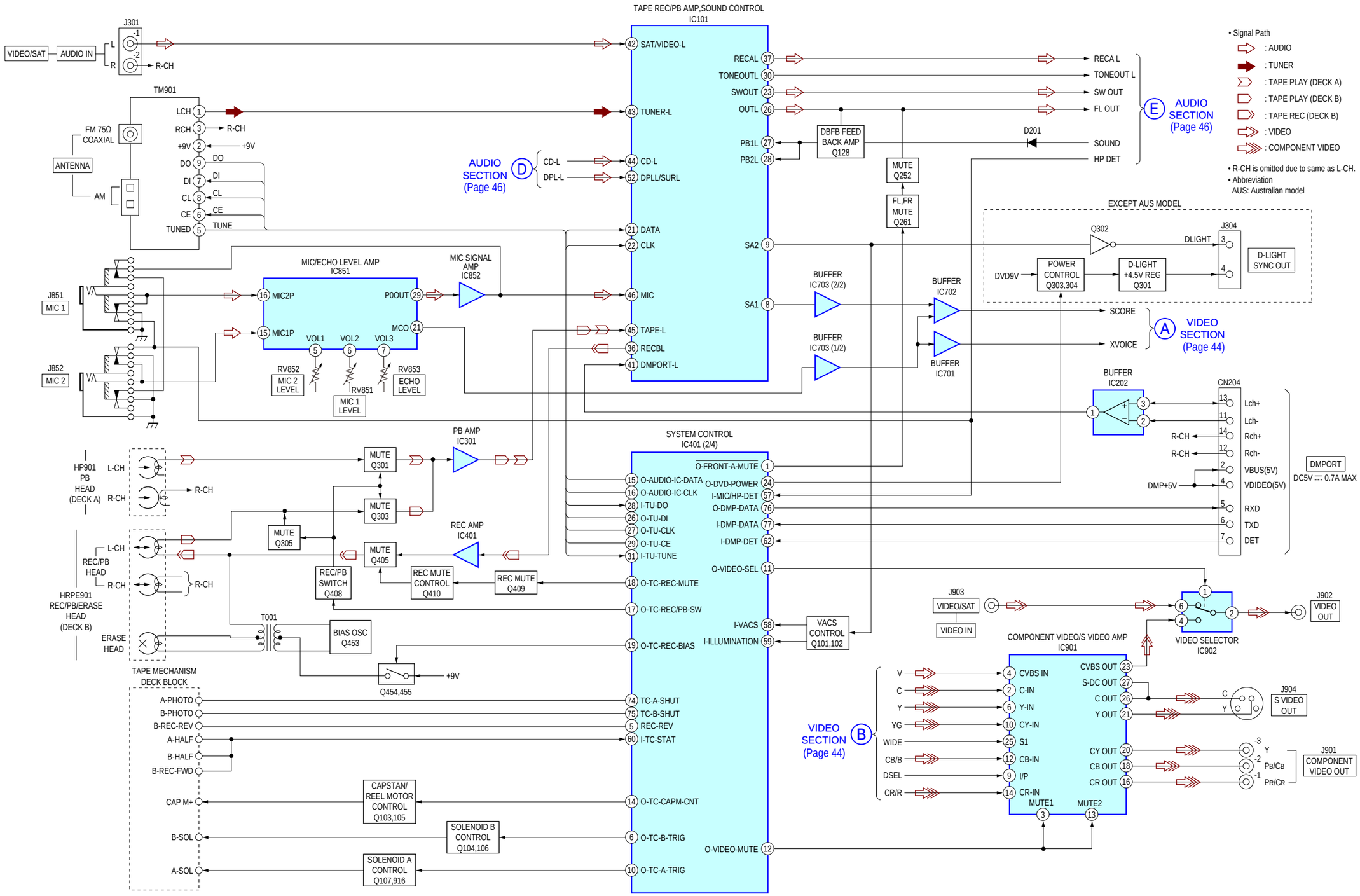
7-1. BLOCK DIAGRAM – RF/SERVO Section –



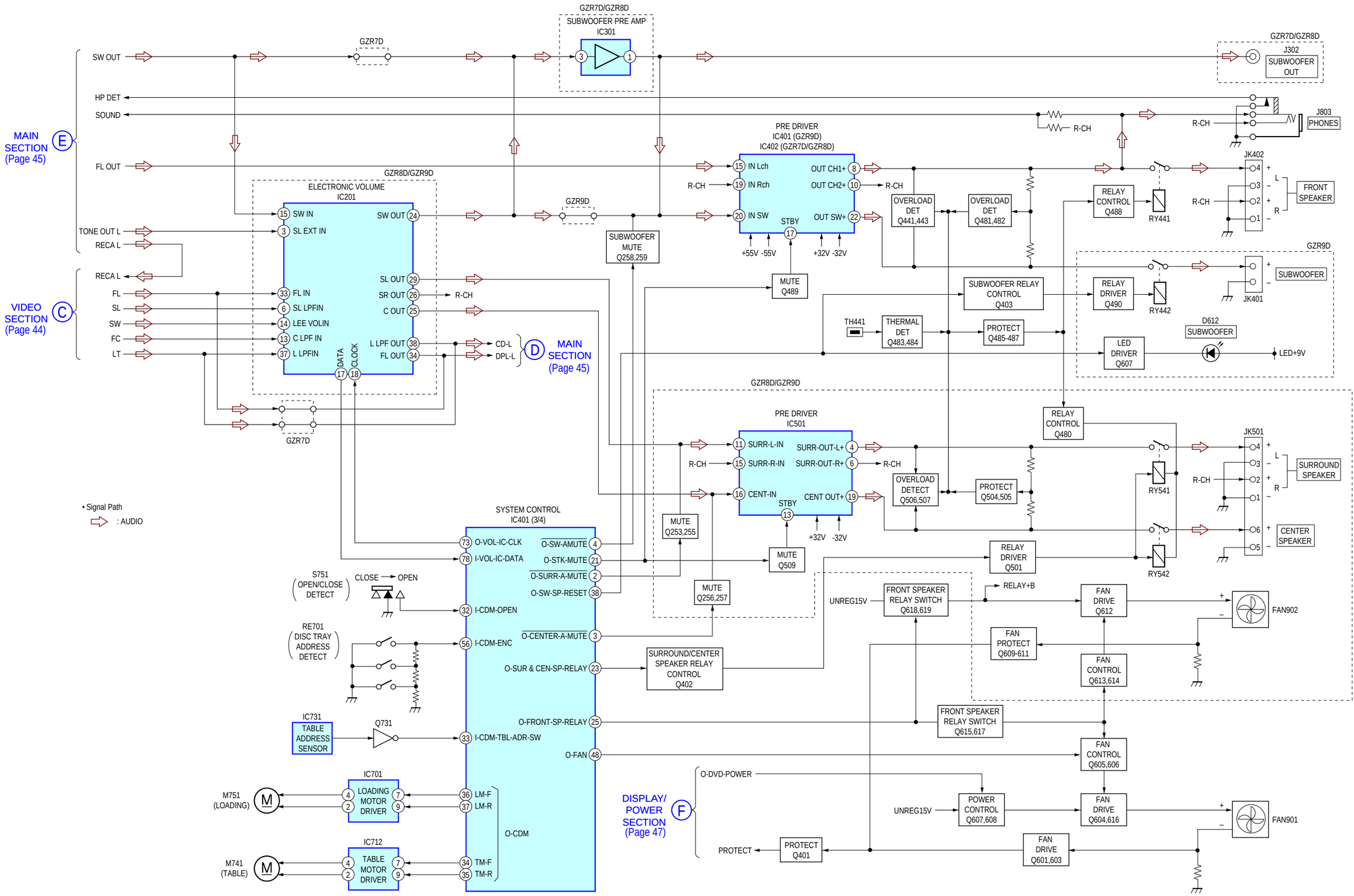
7-2. BLOCK DIAGRAM – VIDEO Section –



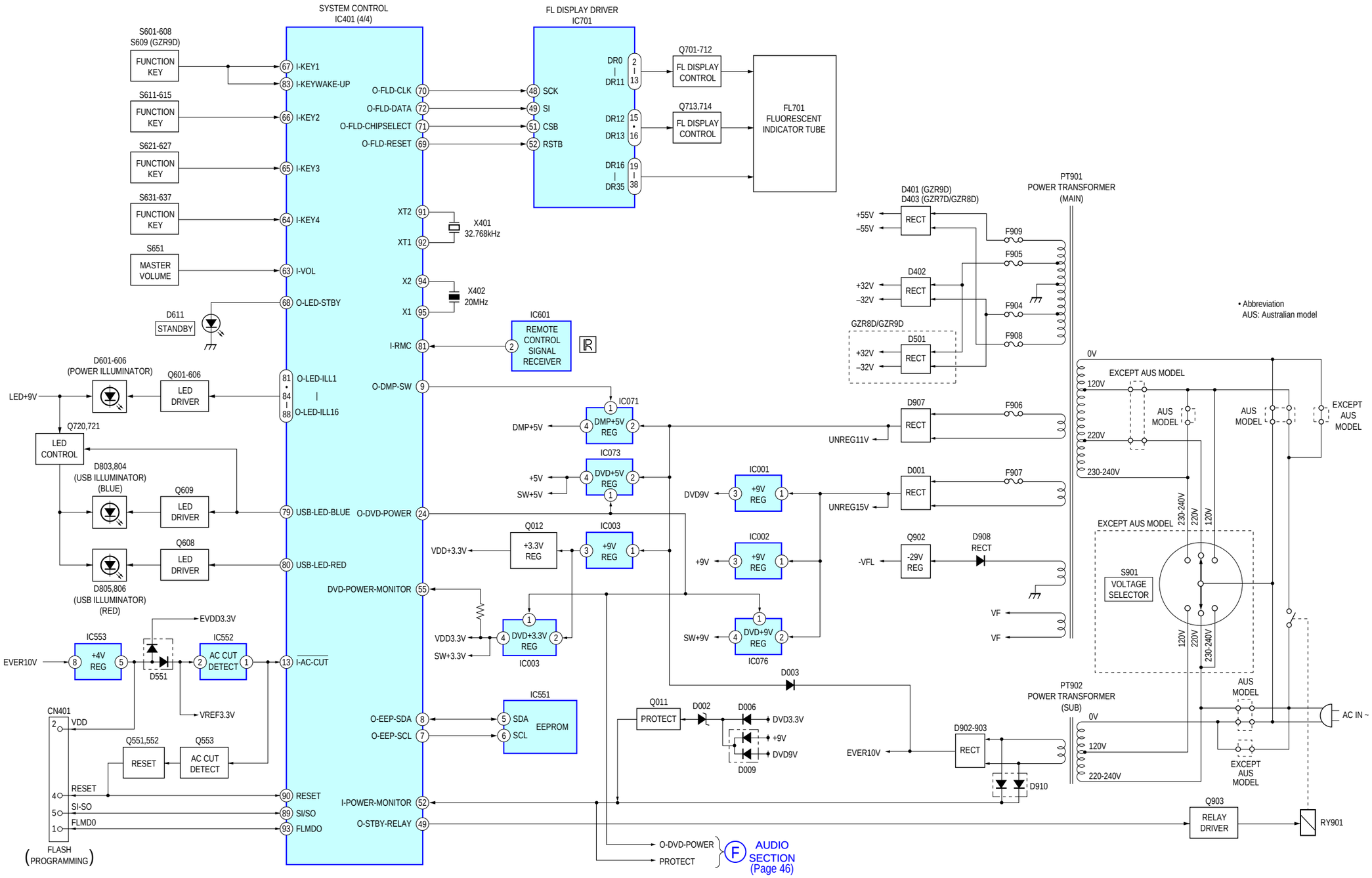
7-3. BLOCK DIAGRAM – MAIN Section –



7-4. BLOCK DIAGRAM – AUDIO Section –



7-5. BLOCK DIAGRAM – DISPLAY/POWER Section –



THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

For Printed Wiring Boards.

Note:

- ○——: Parts extracted from the component side.
- ——: parts extracted from the conductor side.
- ▬: Pattern from the side which enables seeing.
  (The other layers' patterns are not indicated.)

Caution:

Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

- Abbreviation
  E2 : 120V AC area in E model
  E3 : 240V AC area in E model
  E12 : 220 – 240V AC area in E model
  E15 : Iran model
  PH : Philippines model
  SP : Singapore model
  TH : Thai model
  AUS : Australian model

UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.
(**Caution:** Some printed circuit boards may not come printed with the lead free mark due to their particular size)

: LEAD FREE MARK

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40 °C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350 °C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

For Schematic Diagrams.

Note:

- All capacitors are in µF unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- ⏛: nonflammable resistor.
- ▭: panel designation.

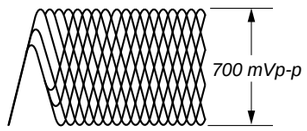
Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

- ▬: B+ Line.
- ▬ ▬ ▬: B– Line.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark: FM
  ∗ : Impossible to measure
- Voltages are taken with VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : AUDIO
  ➡ : TUNER
  ⇨ : VIDEO
  ⇨ : COMPONENT VIDEO
  ⇨ : TAPE PLAY (DECK A)
  ⇨ : TAPE PLAY (DECK B)
  ⇨ : TAPE REC (DECK B)
  ⇨ : DVD (AUDIO)
  ⇨ : DVD (RF)
  ⇨ : DVD (DIGITAL)
- Abbreviation
  E2 : 120V AC area in E model
  E3 : 240V AC area in E model
  E12 : 220 – 240V AC area in E model
  E15 : Iran model
  PH : Philippines model
  SP : Singapore model
  TH : Thai model
  AUS : Australian model

- **Waveforms**

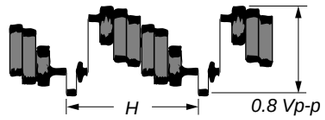
– DMB18 Board –

① IC102 ⑩ (DVDRFIP)



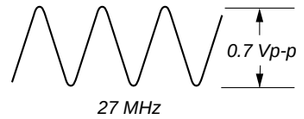
200 mV/DIV, 100 nsec/DIV

④ IC102 ⑱⑦ (CVBS)



500 mV/DIV, 20 µsec/DIV

⑦ IC102 ㉘ (XTALI)

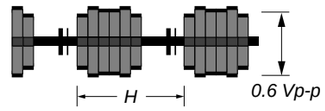


500 mV/DIV, 20 nsec/DIV

② IC102 ㉚ (FEO)

100 mV/DIV, 1 msec/DIV

⑤ IC102 ⑱⑧ (C)

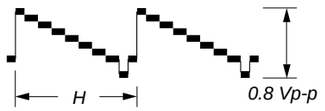


500 mV/DIV, 20 µsec/DIV

③ IC102 ㉛ (TEO)

500 mV/DIV, 1 msec/DIV

⑥ IC102 ⑲① (Y)



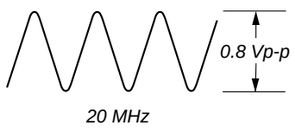
500 mV/DIV, 20 µsec/DIV

– MAIN Board –

① IC401 ⑨② (XT1)

0.5 V/DIV, 20 µsec/DIV

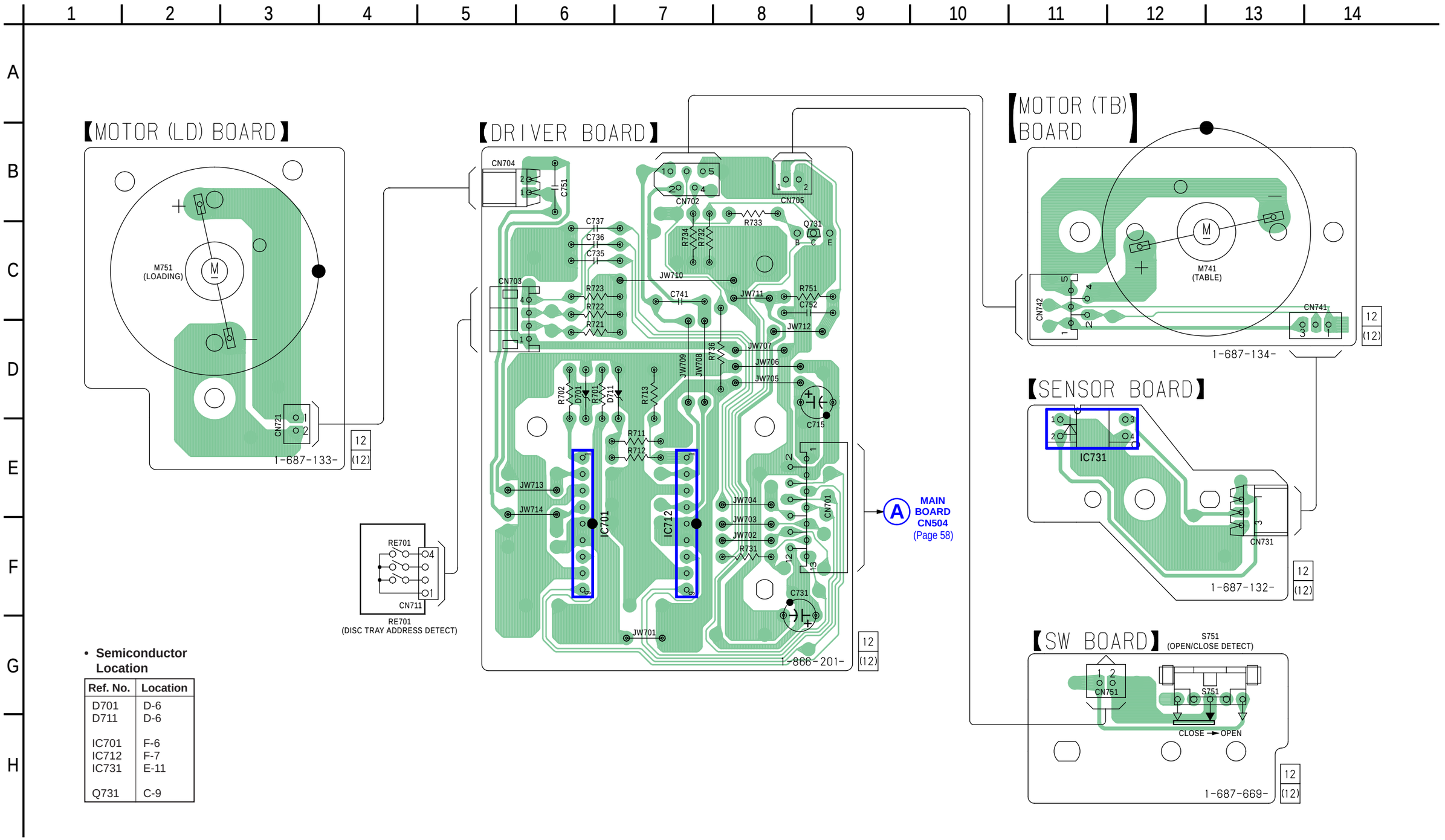
② IC401 ⑨⑤ (X1)



0.5 V/DIV, 20 nsec/DIV

7-6. PRINTED WIRING BOARDS – DRIVER Section –

• See page 42 for Circuit Boards Location. • : Uses unleaded solder.

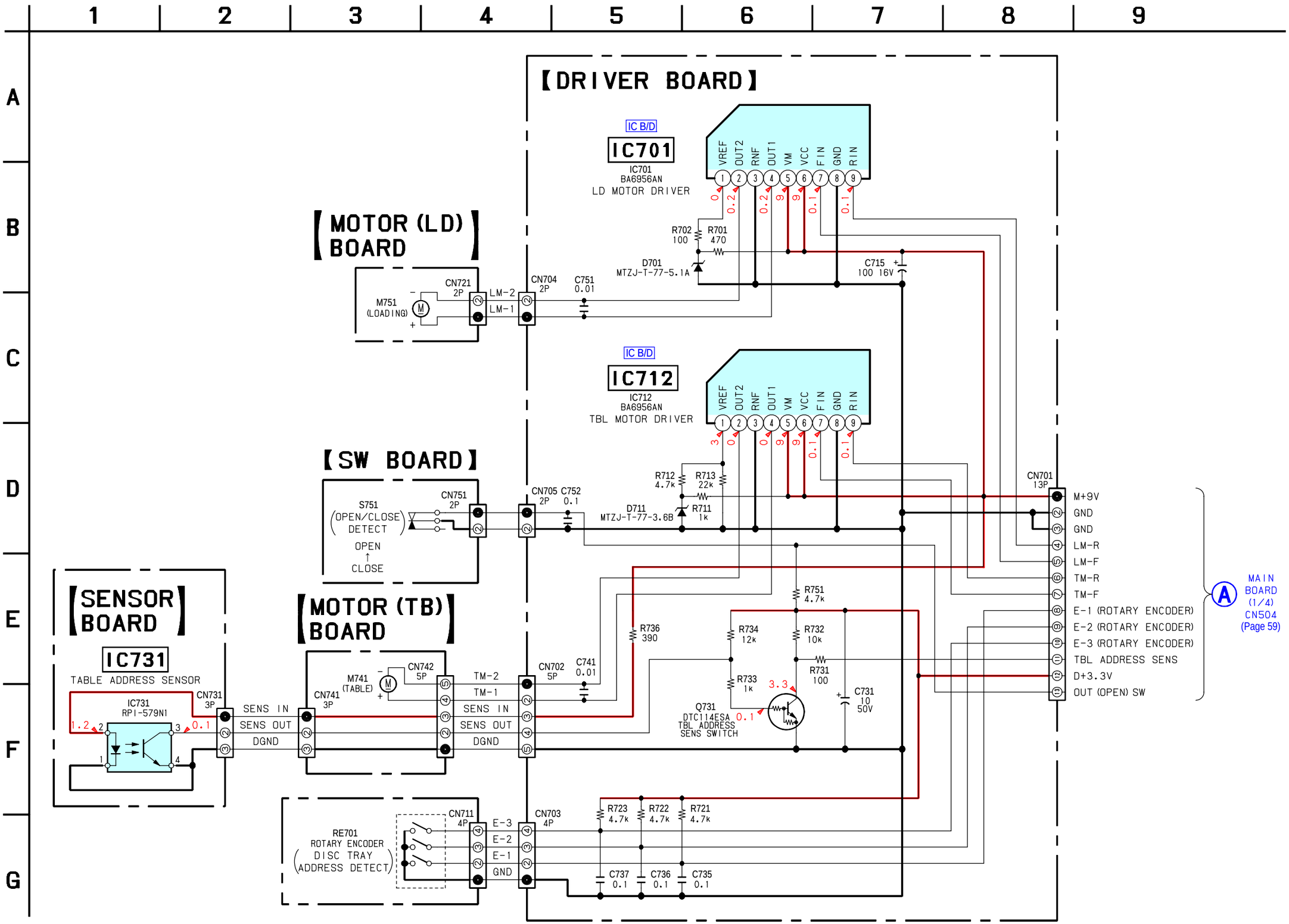


- **Semiconductor Location**

Ref. No.	Location
D701	D-6
D711	D-6
IC701	F-6
IC712	F-7
IC731	E-11
Q731	C-9

7-7. SCHEMATIC DIAGRAM – DRIVER Section –

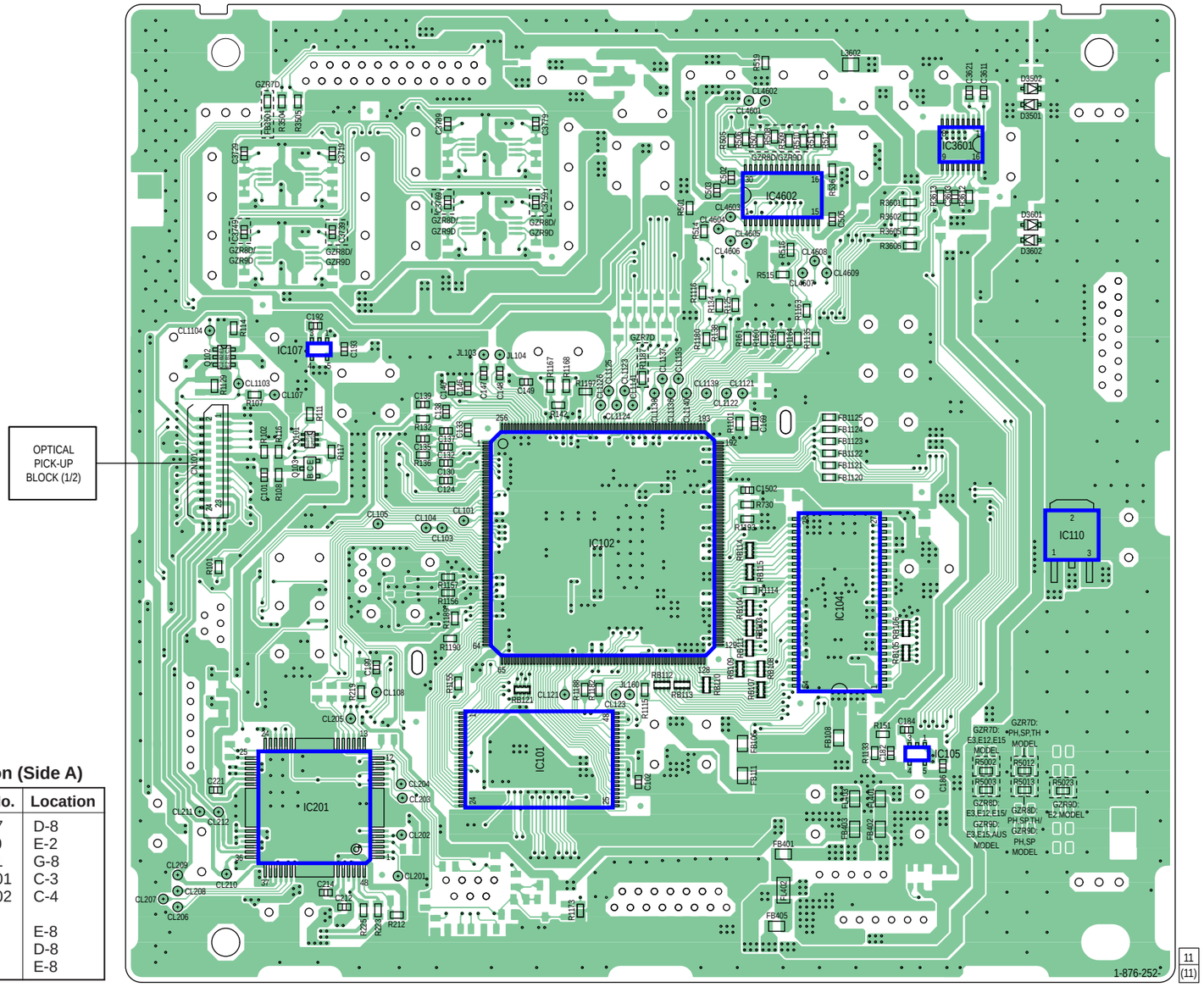
• See page 81 for IC Block Diagrams.



7-8. PRINTED WIRING BOARD – DMB18 Section (1/2) –

• See page 42 for Circuit Boards Location. • : Uses unleaded solder.

【DMB18 BOARD】(SIDE A)



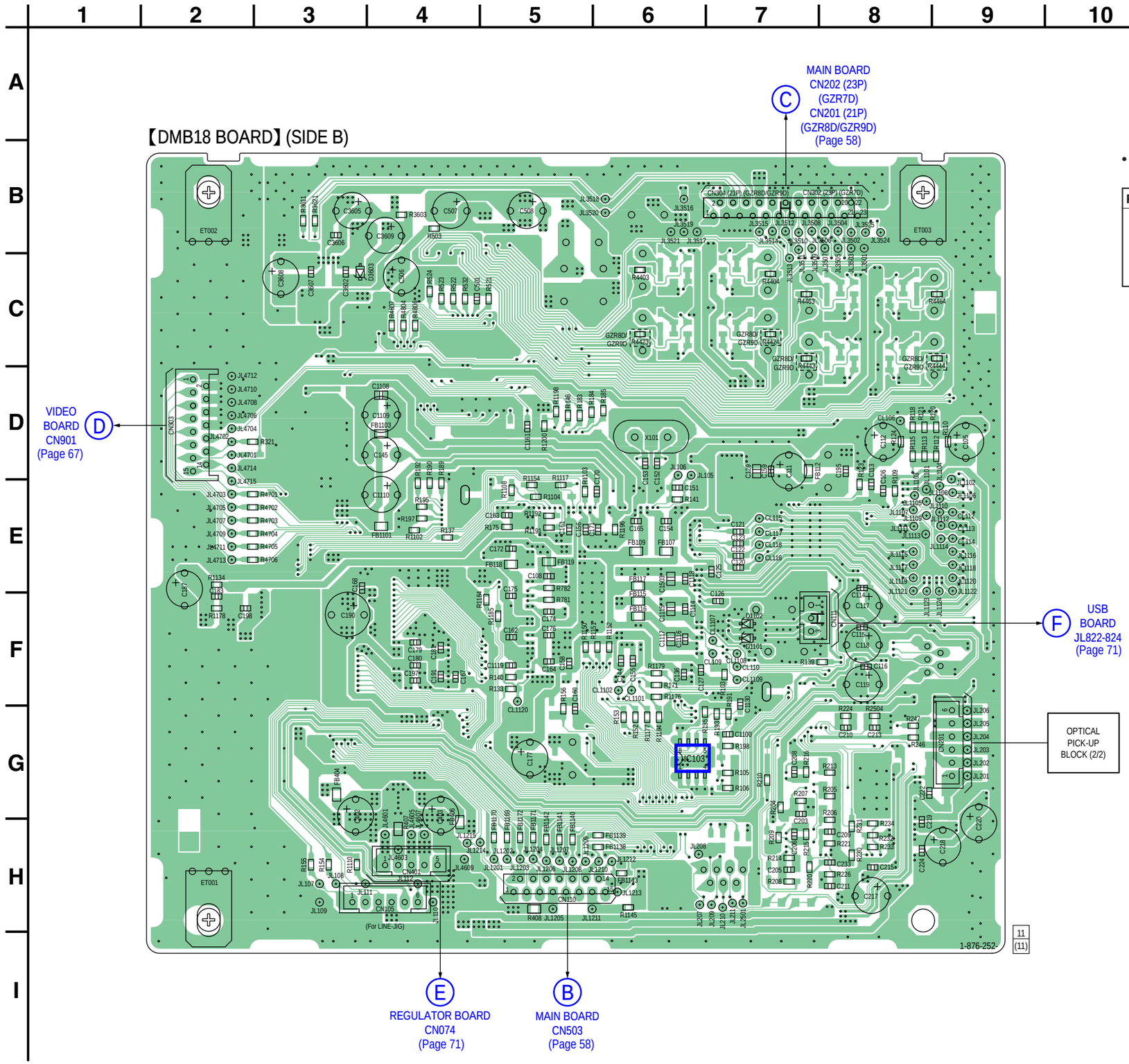
• **Semiconductor Location (Side A)**

Ref. No.	Location	Ref. No.	Location
D3501	B-3	IC107	D-8
D3502	B-3	IC110	E-2
D3601	C-3	IC201	G-8
D3602	C-3	IC3601	C-3
		IC4602	C-4
IC101	G-6		
IC102	F-6	Q101	E-8
IC104	F-4	Q102	D-8
IC105	G-3	Q103	E-8

7-9. PRINTED WIRING BOARD – DMB18 Section (2/2) –

• See page 42 for Circuit Boards Location. • : Uses unleaded solder.

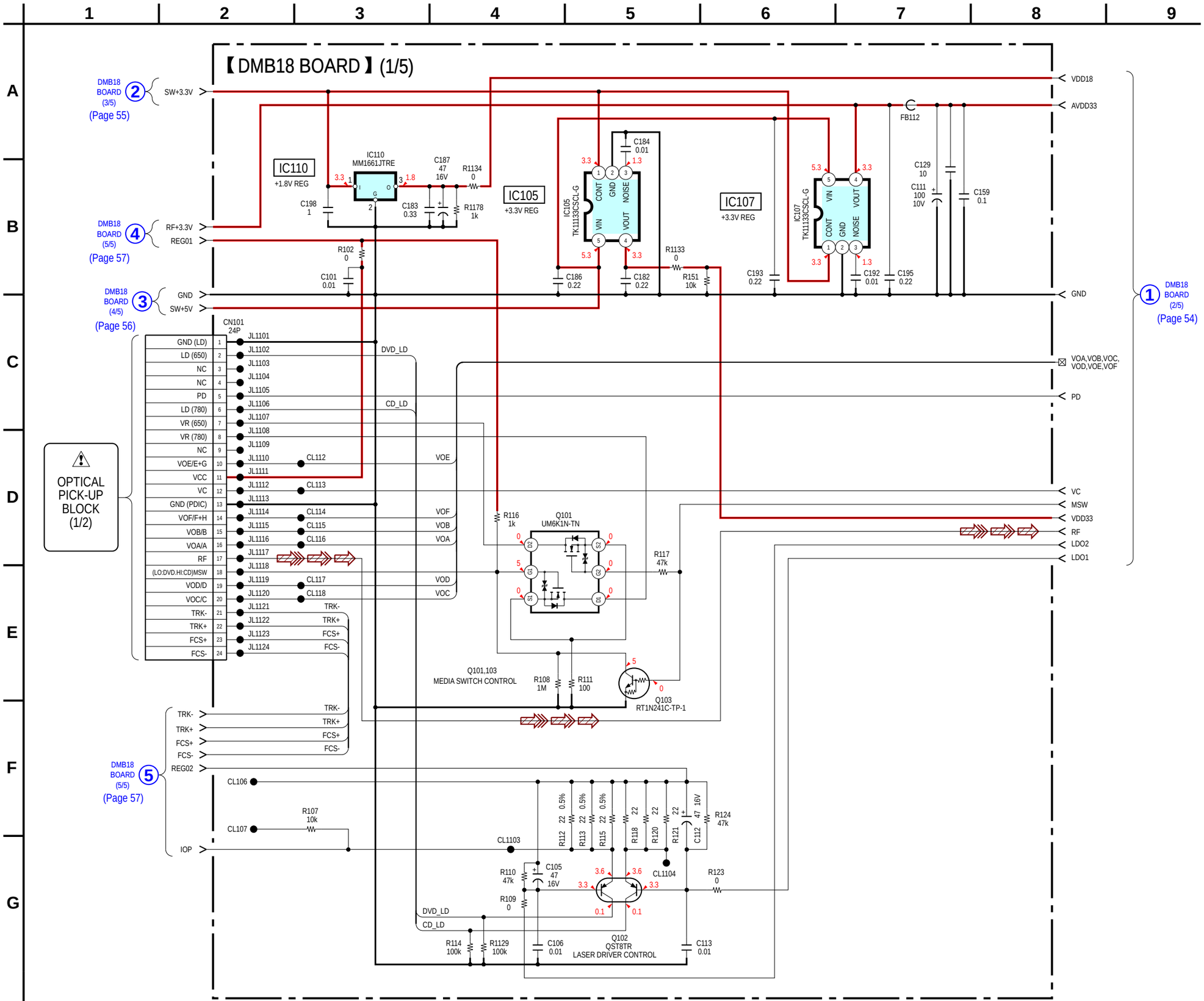
【DMB18 BOARD】(SIDE B)



• **Semiconductor Location (Side B)**

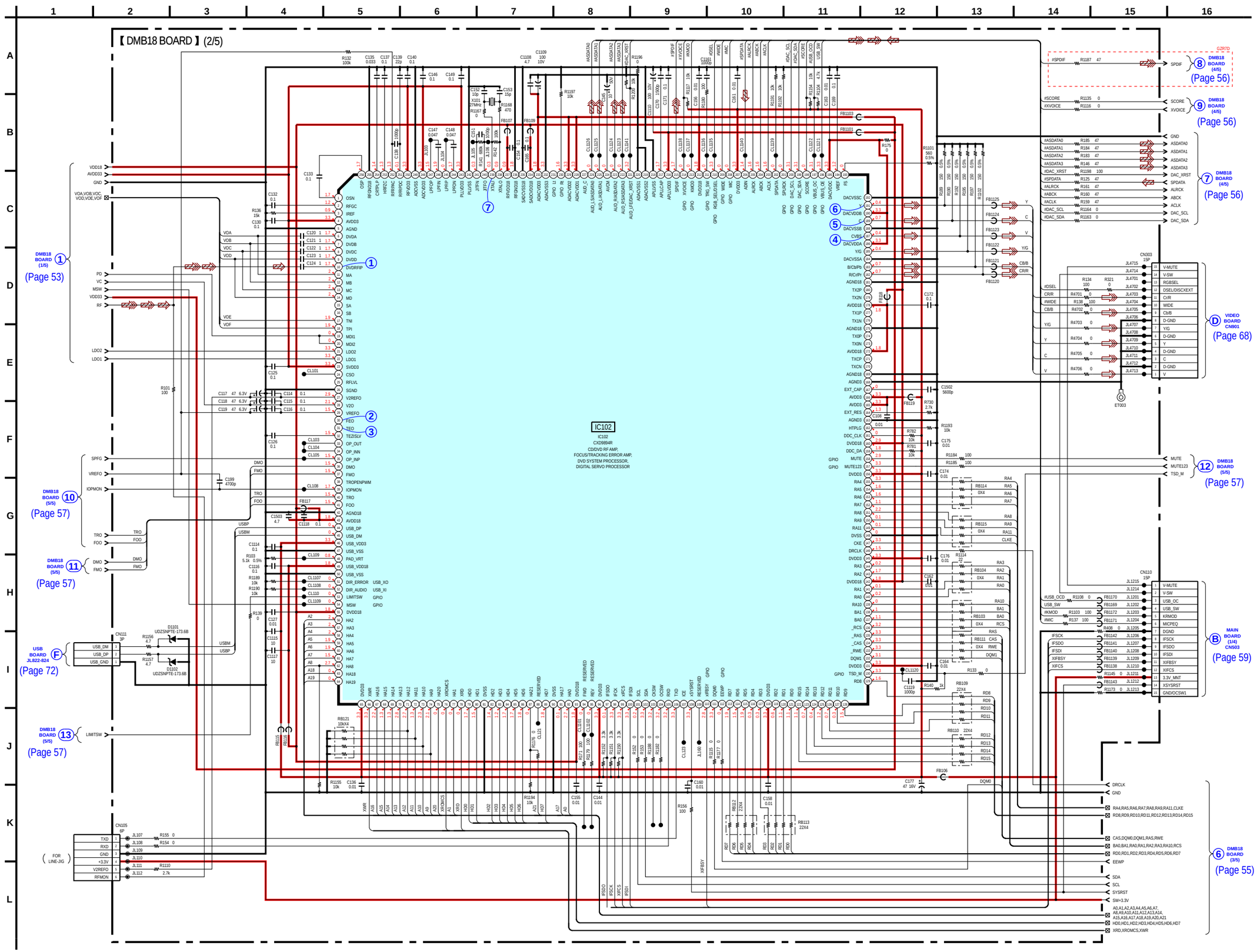
Ref. No.	Location
D1101	F-7
D1102	F-7
D3603	C-3
IC103	G-6

7-10. SCHEMATIC DIAGRAM – DMB18 Section (1/5) –



7-11. SCHEMATIC DIAGRAM – DMB18 Section (2/5) –

• See page 48 for waveforms. • See page 87 for IC Pin Descriptions.



7-12. SCHEMATIC DIAGRAM – DMB18 Section (3/5) –

【 DMB18 BOARD 】(3/5)

IC104
64M SDRAM
IC104
A2V64S40CTP-G6

IC101
32M FLASH ROM
IC101
*1

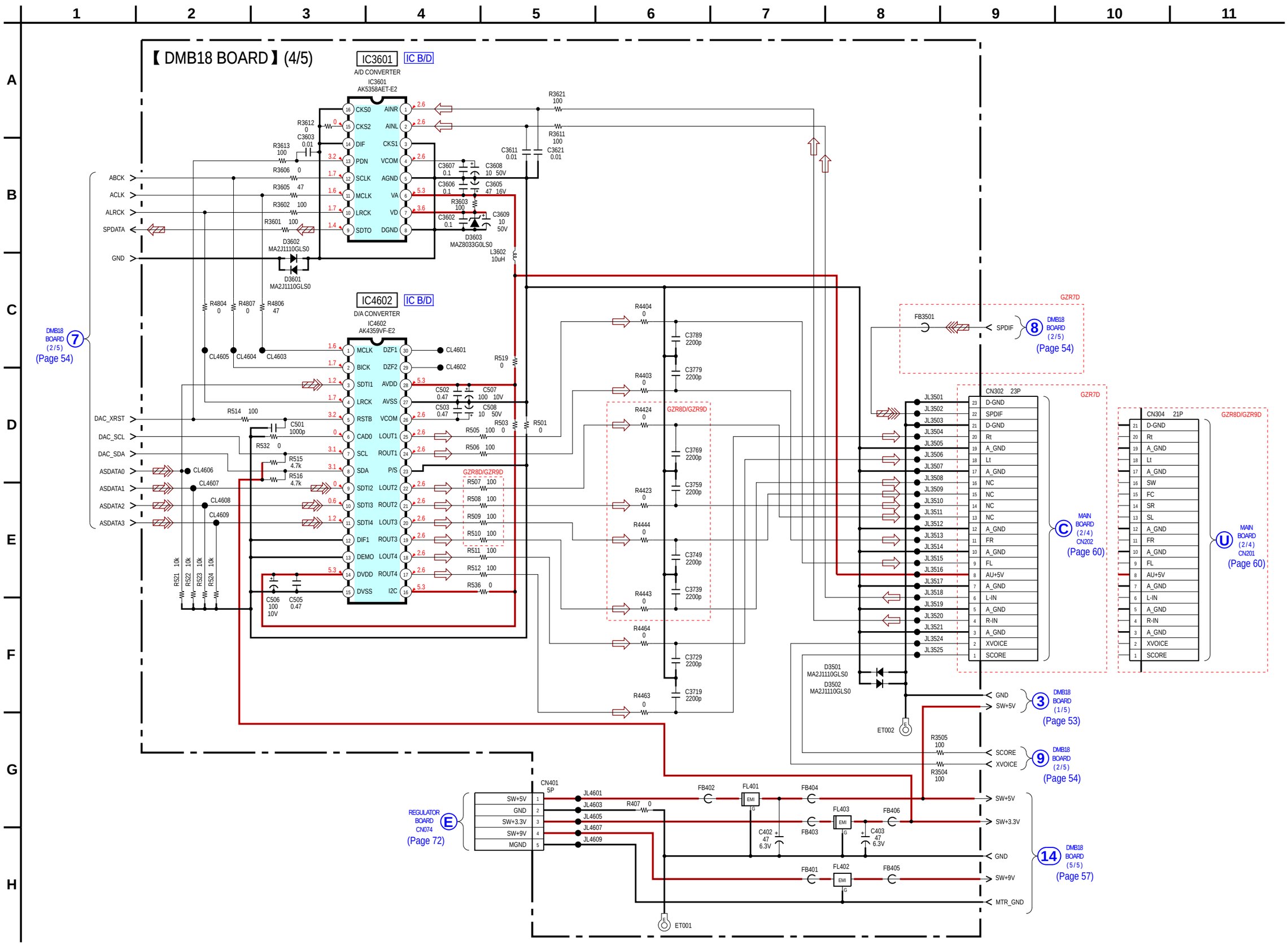
*1 IC101
ES29LV320EB70TG-CBA1-0802CE (GZR7D:E3,E12,E15)
ES29LV320EB70TG-CBA1-0802GA (GZR7D:PH,SP,TH)
ES29LV320EB70TG-CBA2-0802UC (GZR9D:E2)
ES29LV320EB70TG-CBA2-0802CE (GZR8D:E3,E12,E15/GZR9D:E3,E15,AUS)
ES29LV320EB70TG-CBA2-0802GA (GZR8D:PH,SP,TH/GZR9D:PH,SP)

IC103
EEPROM
IC103
S-24CS64A01-J8T1G

DMB18 BOARD (2/5) (Page 54)
DRCLK
GND
RA4,RA5,RA6,RA7,RA8,RA9,RA11,CLKE
RD8,RD9,RD10,RD11,RD12,RD13,RD14,RD15
CAS,DQM0,DQM1,RAS,RWE
BA0,BA1,RA0,RA1,RA2,RA3,RA10,RCS
RD0,RD1,RD2,RD3,RD4,RD5,RD6,RD7
EEWP
SDA
SCL
SYSRST
SW+3.3V
A0,A1,A2,A3,A4,A5,A6,A7,A8,A9,A10,A11,A12,A13,A14,A15,A16,A17,A18,A19,A20,A21
HD0,HD1,HD2,HD3,HD4,HD5,HD6,HD7
XRD,XROMCS,XWR
DMB18 BOARD (1/5) (Page 53)
SW+3.3V

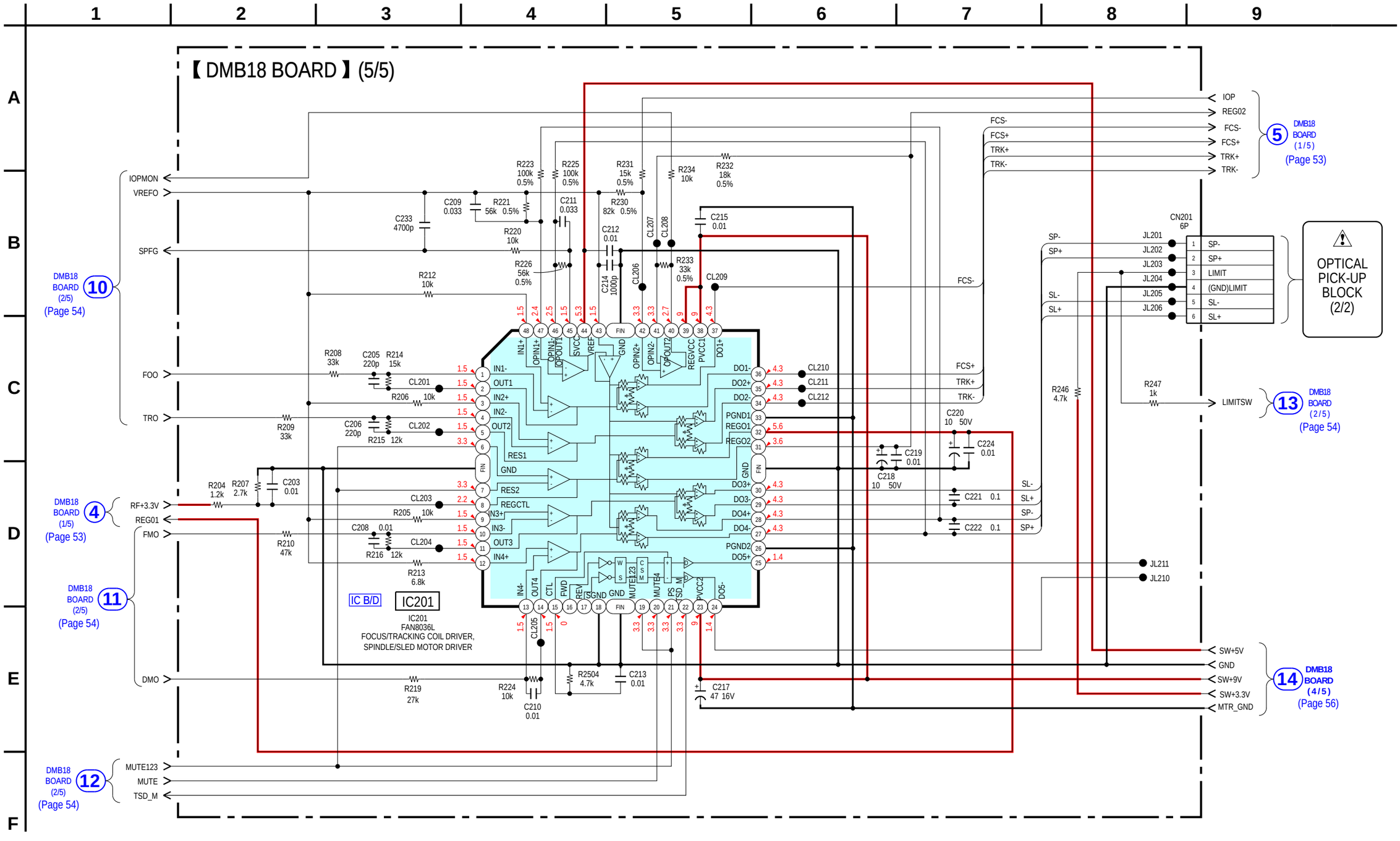
7-13. SCHEMATIC DIAGRAM – DMB18 Section (4/5) –

• See page 81 for IC Block Diagrams.



7-14. SCHEMATIC DIAGRAM – DMB18 Section (5/5) –

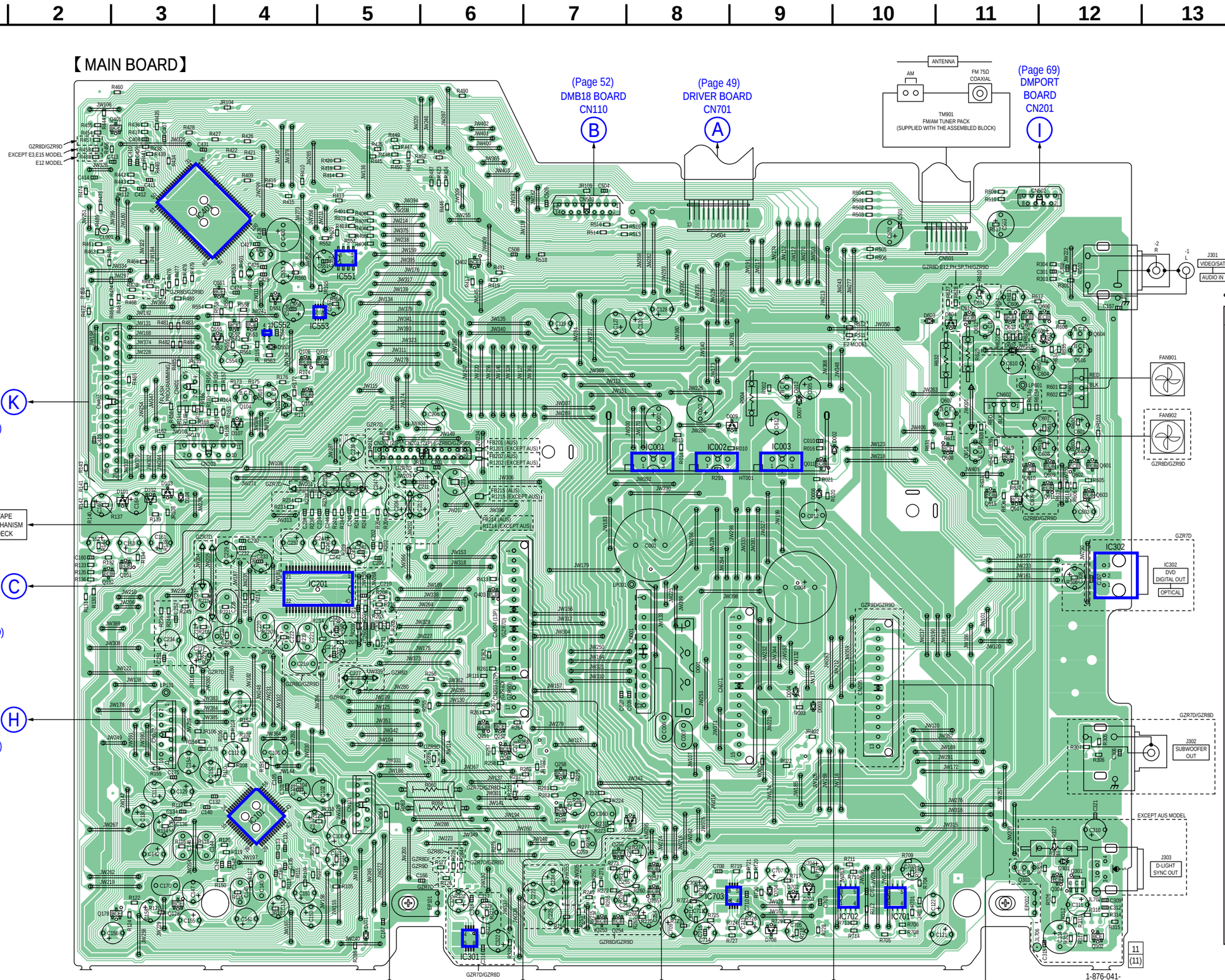
• See page 82 for IC Block Diagrams.



7-15. PRINTED WIRING BOARD – MAIN Section –

• See page 42 for Circuit Boards Location. • : Uses unleaded solder.

【MAIN BOARD】



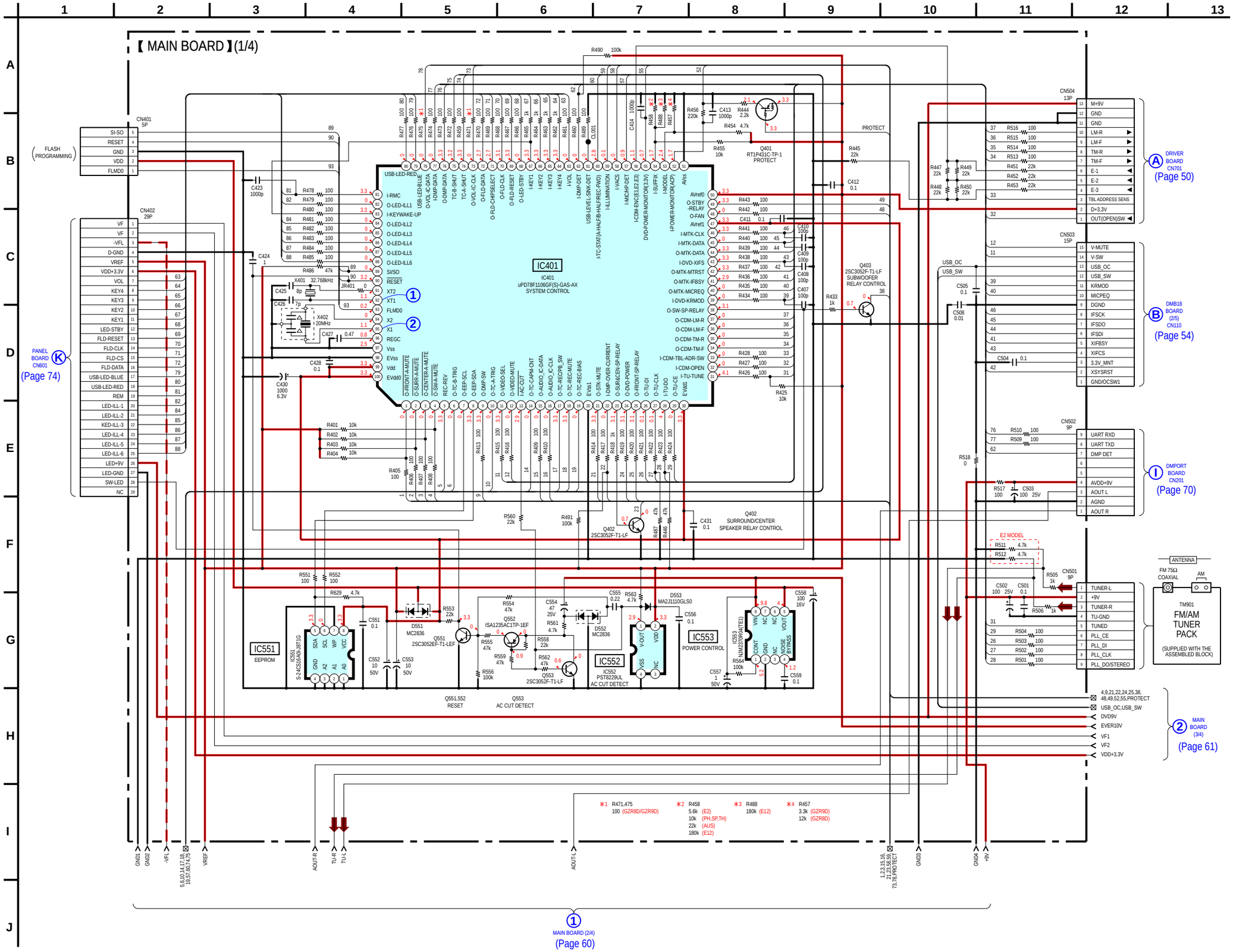
• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D001	G-8	Q104	D-4
D002	E-10	Q105	D-4
D003	G-9	Q106	D-4
D004	G-9	Q107	D-5
D006	E-9	Q128	I-3
D007	D-9	Q178	I-3
D009	D-9	Q251	G-6
D101	E-3	Q252	G-6
D102	E-3	<Q253>	I-7
D103	E-3	<Q254>	I-7
D104	E-3	<Q255>	I-8
D107	D-4	<Q256>	I-7
D201	I-5	<Q257>	I-8
D202	H-8	Q258	H-7
(D301)	I-12	Q259	H-7
D551	C-4	Q261	H-6
D552	D-4	(Q301)	I-12
D553	D-4	(Q302)	I-12
D601	D-12	(Q303)	I-11
D602	D-11	(Q304)	I-12
D603	C-10	Q401	A-3
<D604>	C-11	Q402	C-6
D701	I-9	Q403	F-6
D702	I-9	Q551	C-4
D704	I-9	Q552	C-4
D708	I-9	Q553	C-4
		Q601	E-12
IC001	E-8	Q602	E-12
IC002	E-8	Q603	E-12
IC003	E-9	Q604	C-12
IC101	H-4	Q605	C-11
<IC201>	F-5	Q606	C-12
[IC301]	I-6	Q607	D-11
((IC302))	F-12	Q608	E-11
IC401	B-3	<Q609>	E-12
IC551	C-5	<Q610>	E-11
IC552	C-4	<Q611>	E-12
IC553	C-5	<Q612>	C-11
IC701	I-10	<Q613>	C-11
IC702	I-10	<Q614>	C-11
IC703	I-9	Q615	E-11
		Q616	D-12
Q011	E-9	Q617	E-11
Q012	D-9	Q618	E-11
Q101	F-3	Q619	E-11
Q102	F-2	Q916	D-4
Q103	D-4		

( ) : Except AUS model
< > : HCD-GZR8D/GZR9D only
[ ] : HCD-GZR7D/GZR8D only
(( )) : HCD-GZR7D only

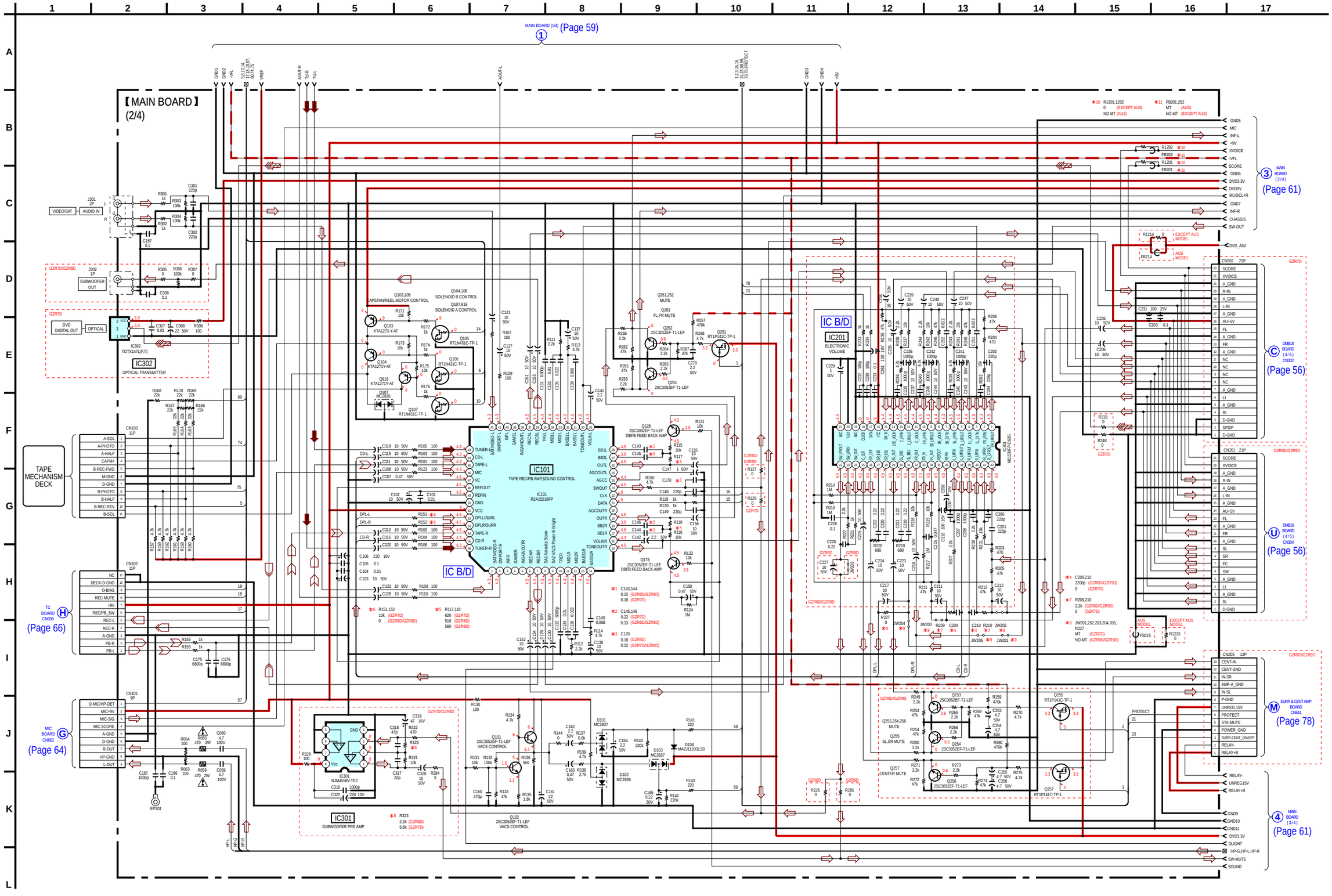
7-16. SCHEMATIC DIAGRAM – MAIN Section (1/4) –

• See page 48 for waveforms. • See page 91 for IC Pin Descriptions.

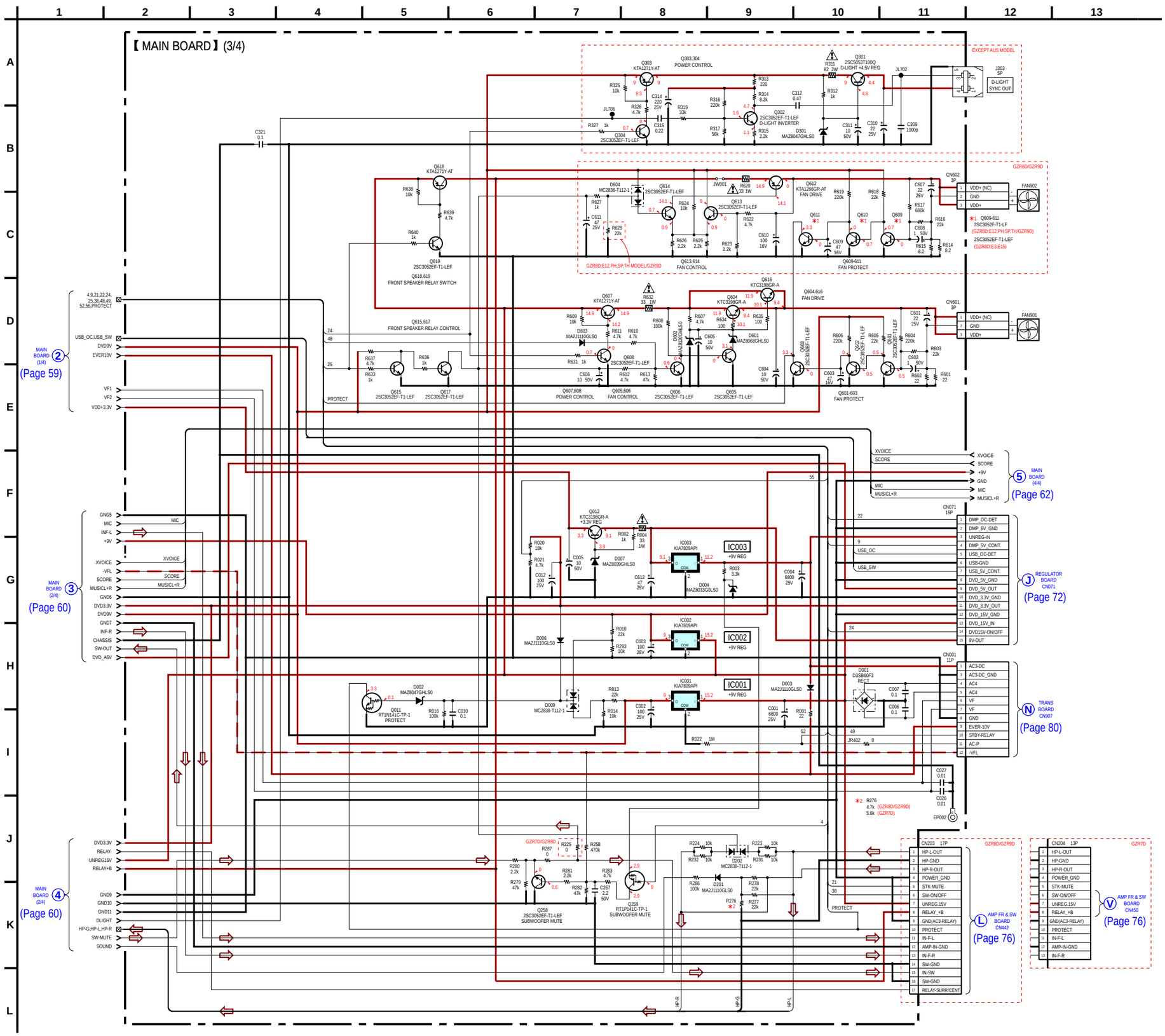


7-17. SCHEMATIC DIAGRAM – MAIN Section (2/4) –

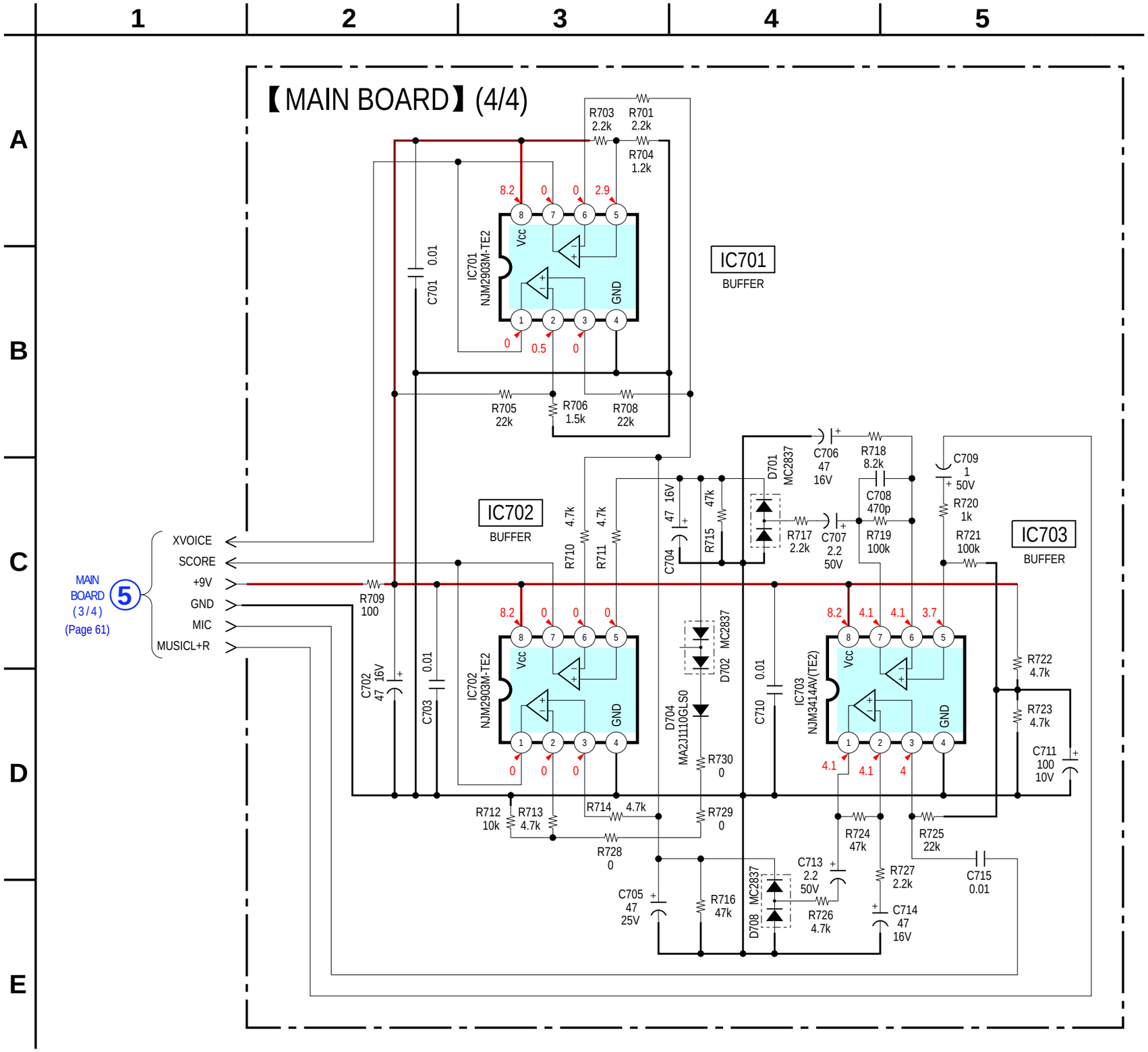
• See page 83 for IC Block Diagrams.



7-18. SCHEMATIC DIAGRAM – MAIN Section (3/4) –

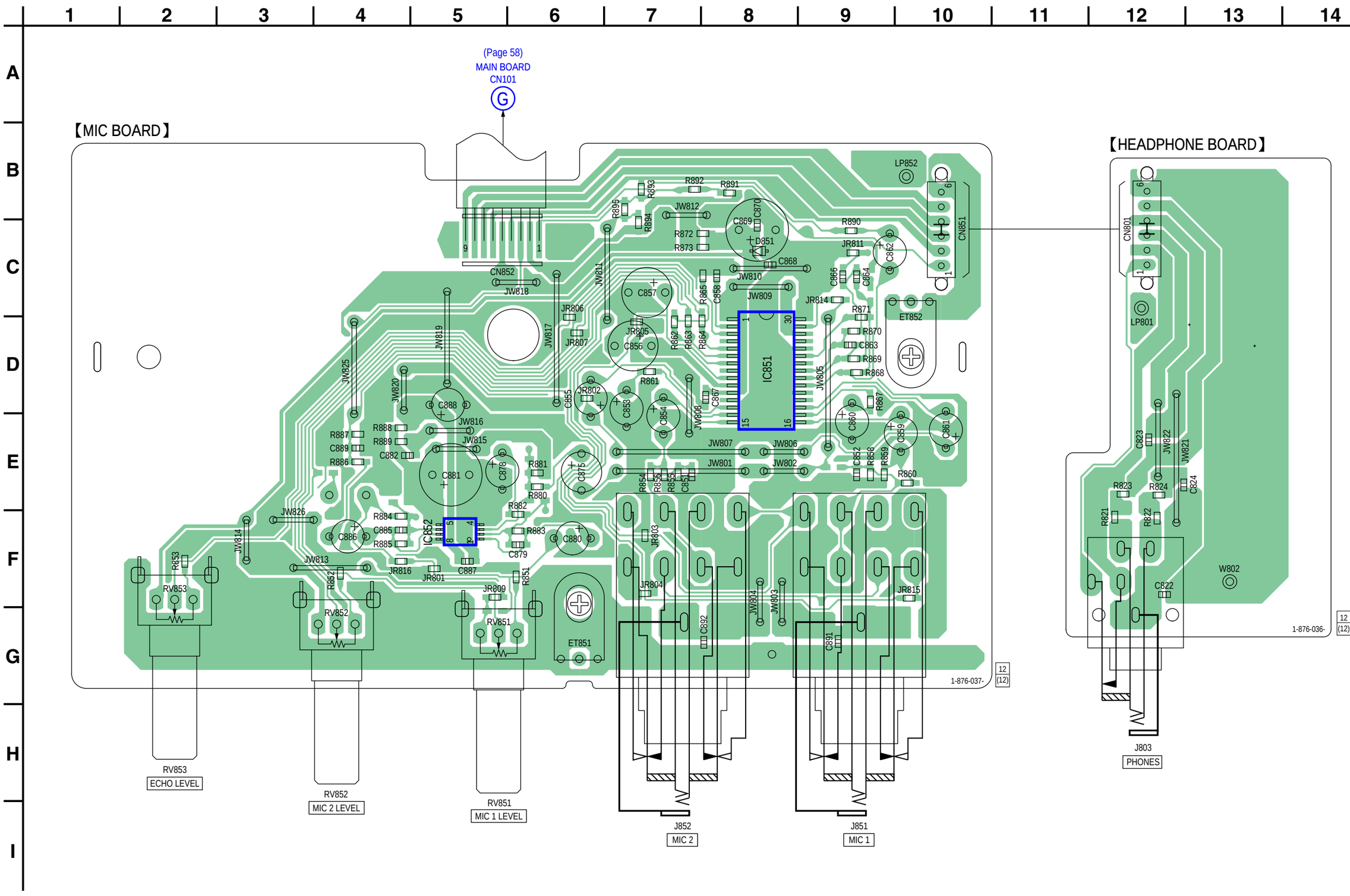


7-19. SCHEMATIC DIAGRAM – MAIN Section (4/4) –



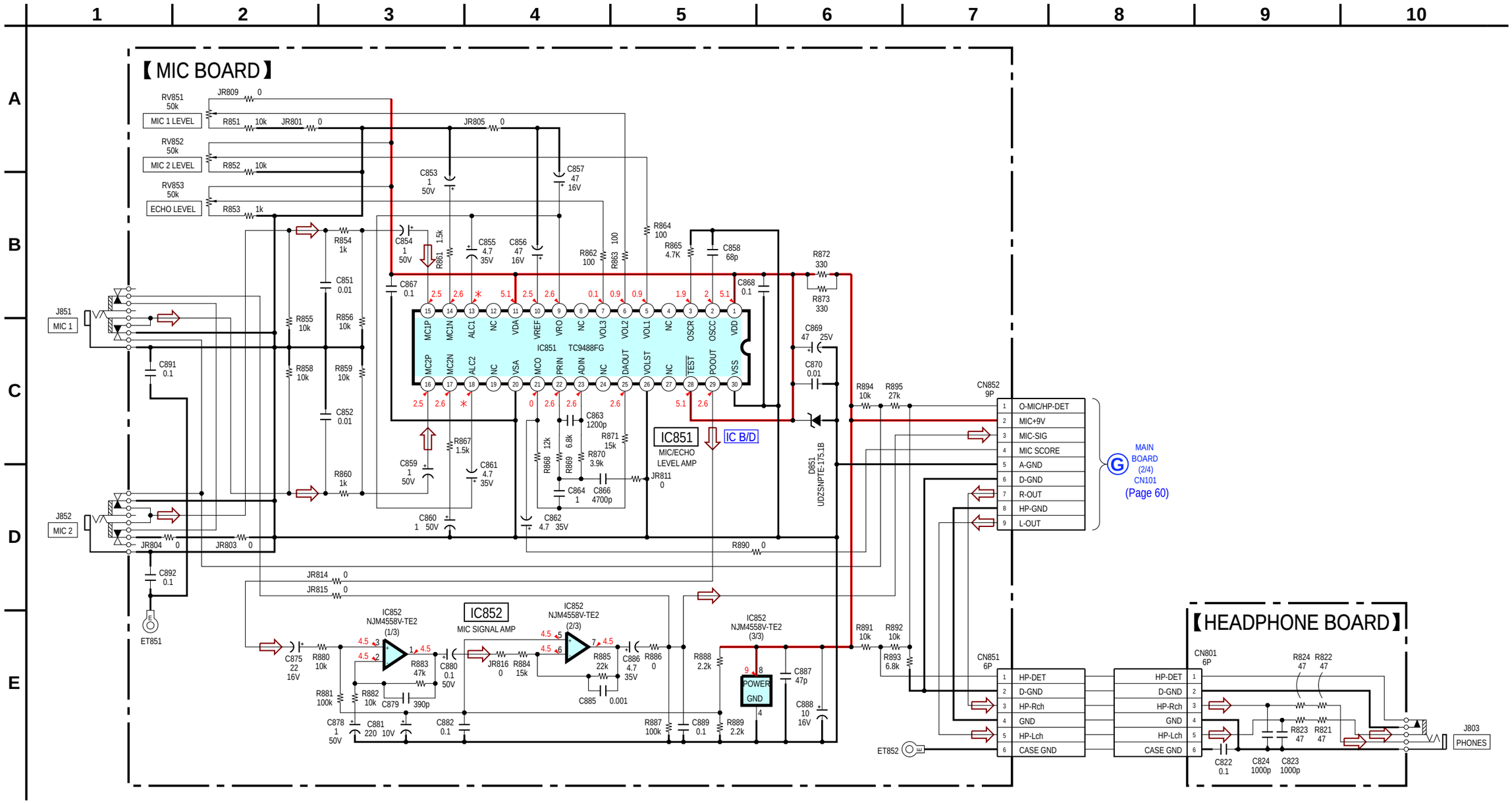
7-20. PRINTED WIRING BOARDS – MIC/HEADPHONE Section –

• See page 42 for Circuit Boards Location. • : Uses unleaded solder.



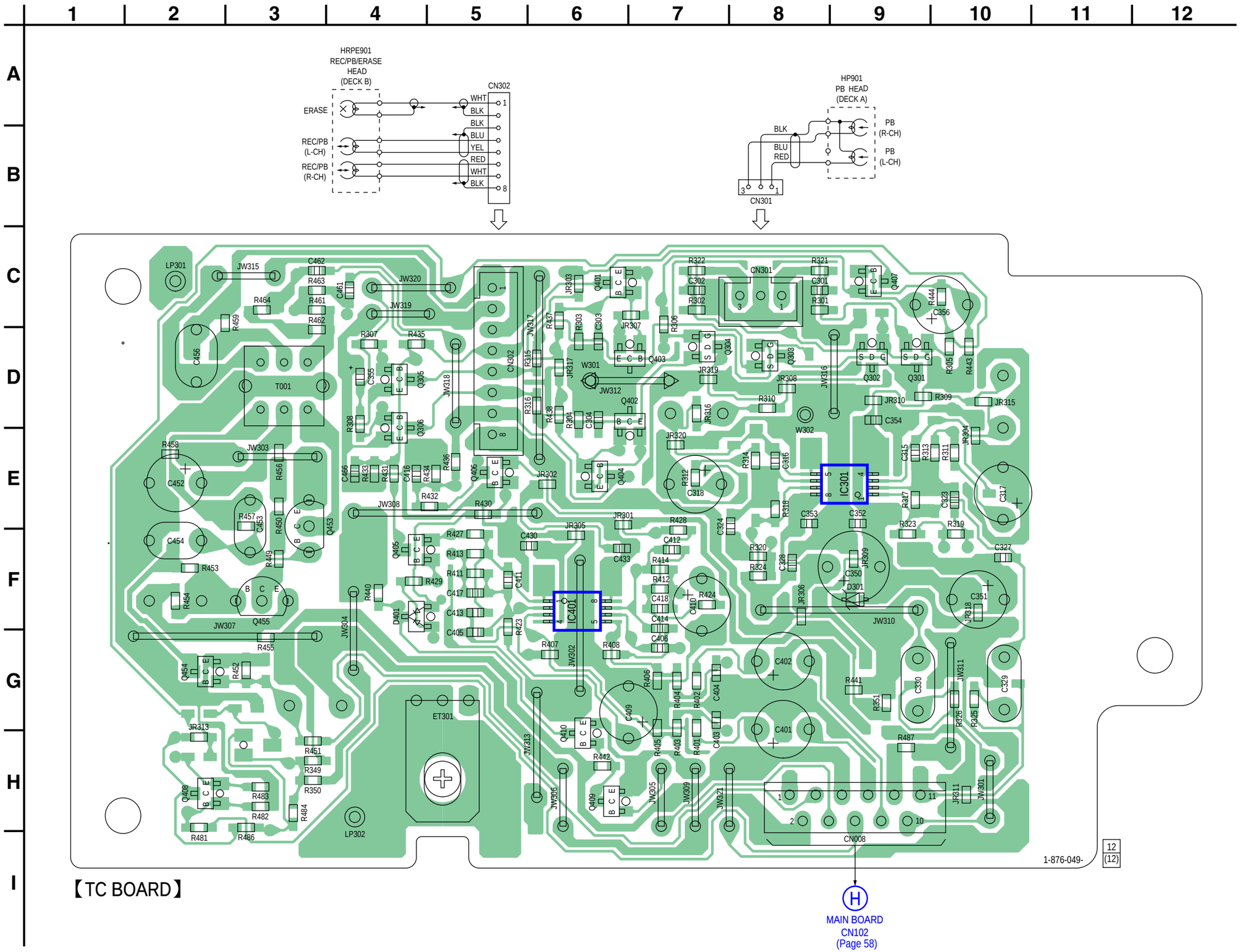
7-21. SCHEMATIC DIAGRAM – MIC/HEADPHONE Section –

• See page 85 for IC Block Diagrams.



7-22. PRINTED WIRING BOARD – TC Section –

• See page 42 for Circuit Boards Location. • : Uses unleaded solder.



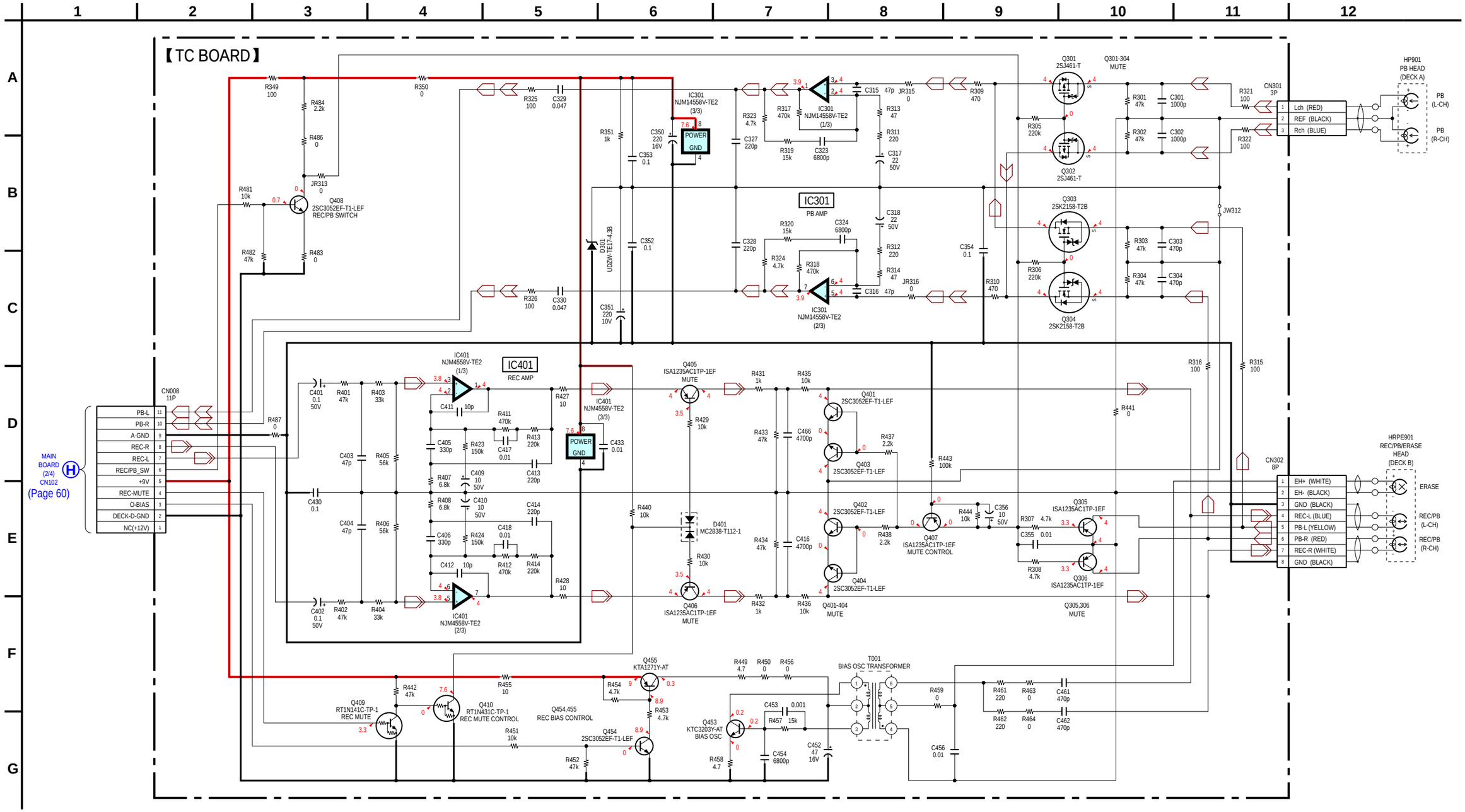
【TC BOARD】

H
MAIN BOARD
CN102
(Page 58)

- **Semiconductor Location**

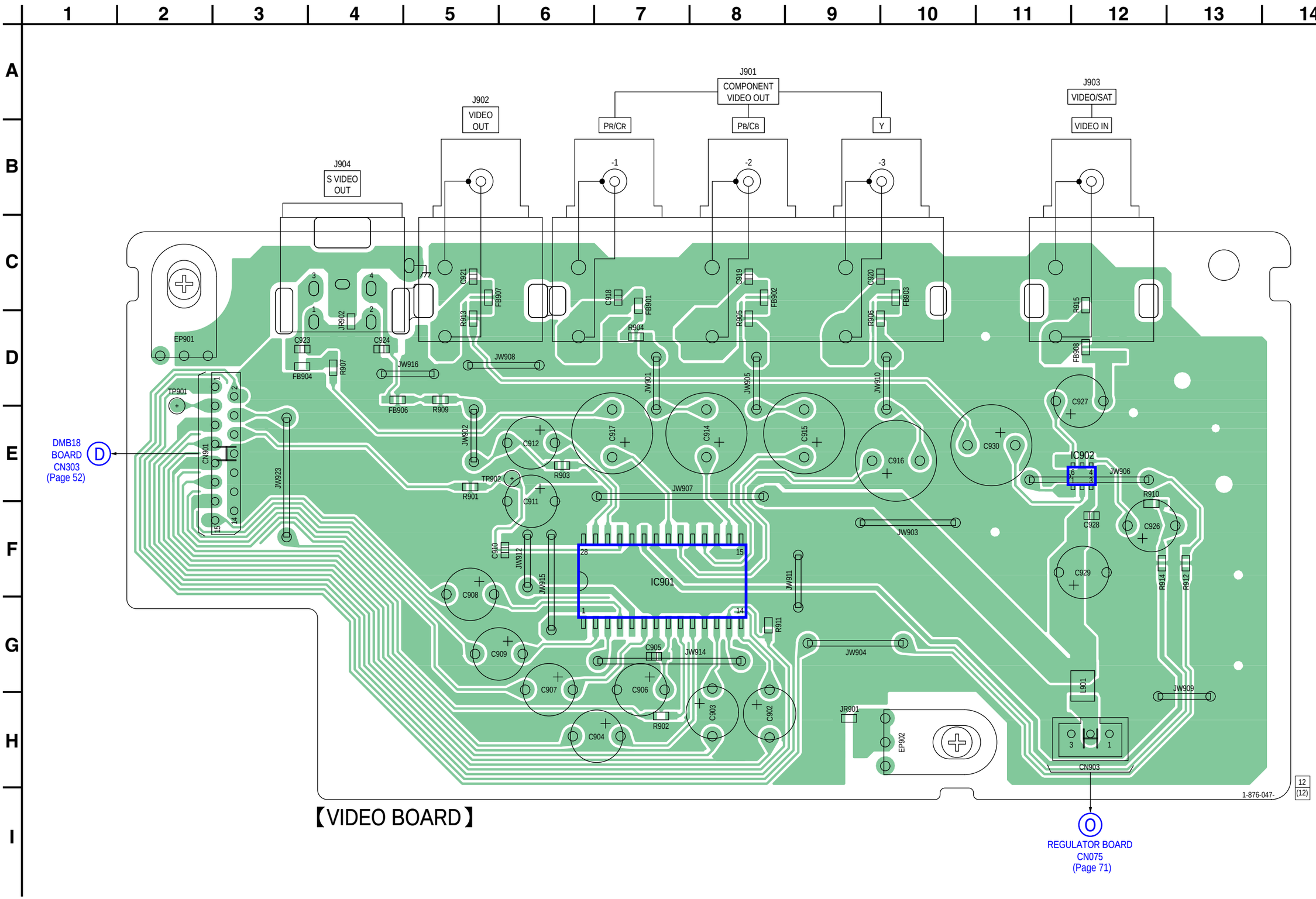
Ref. No.	Location
D301	F-9
D401	F-4
IC301	E-9
IC401	F-6
Q301	D-9
Q302	D-9
Q303	D-8
Q304	D-7
Q305	D-4
Q306	D-4
Q401	C-6
Q402	D-7
Q403	D-7
Q404	E-6
Q405	F-4
Q406	E-5
Q407	C-9
Q408	H-2
Q409	H-6
Q410	H-6
Q453	E-3
Q454	H-2
Q455	F-3

7-23. SCHEMATIC DIAGRAM – TC Section –



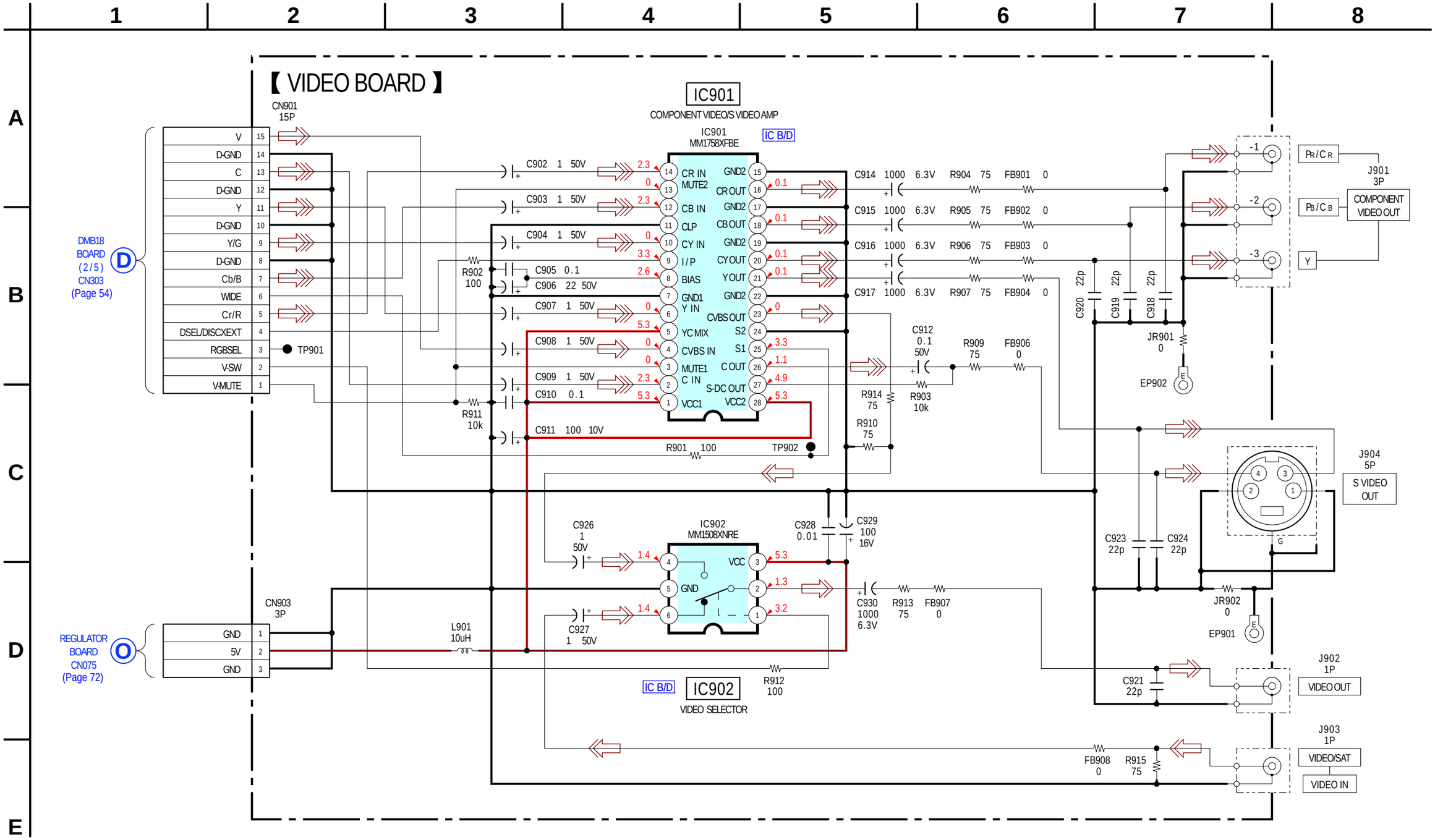
7-24. PRINTED WIRING BOARD – VIDEO Section –

• See page 42 for Circuit Boards Location. • : Uses unleaded solder.



7-25. SCHEMATIC DIAGRAM – VIDEO Section –

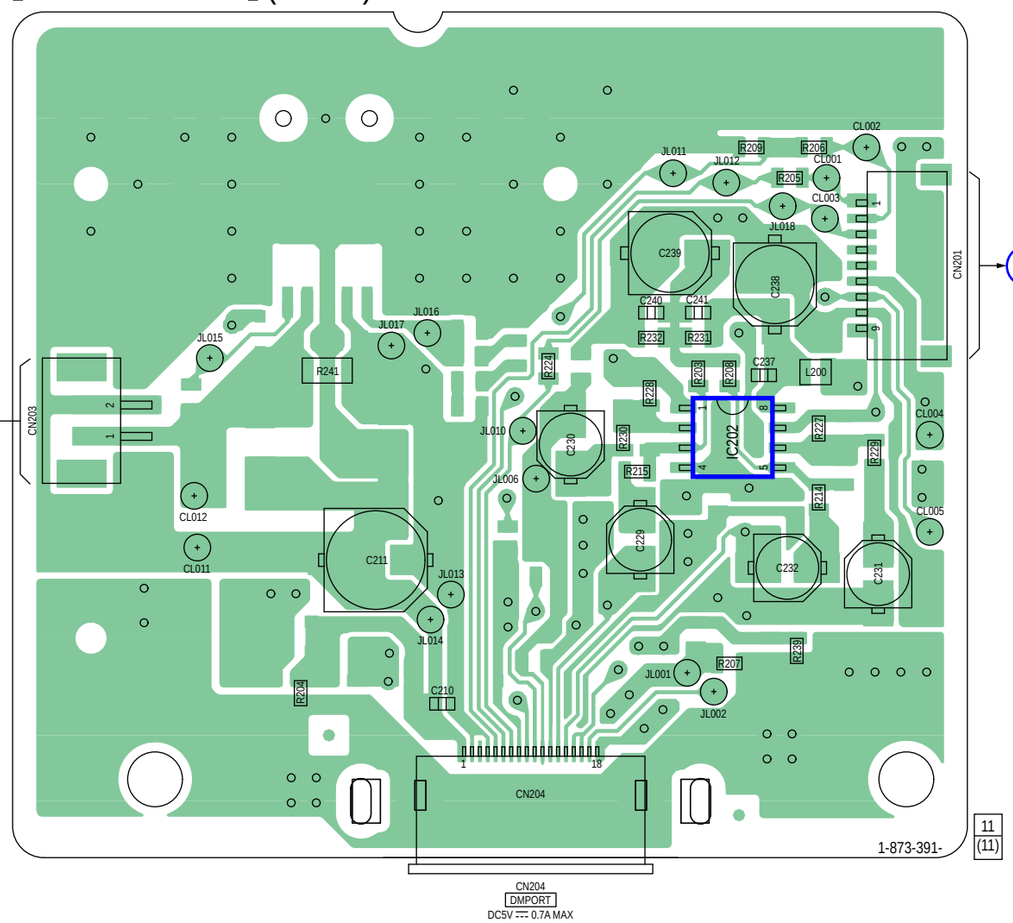
• See page 85 for IC Block Diagrams.



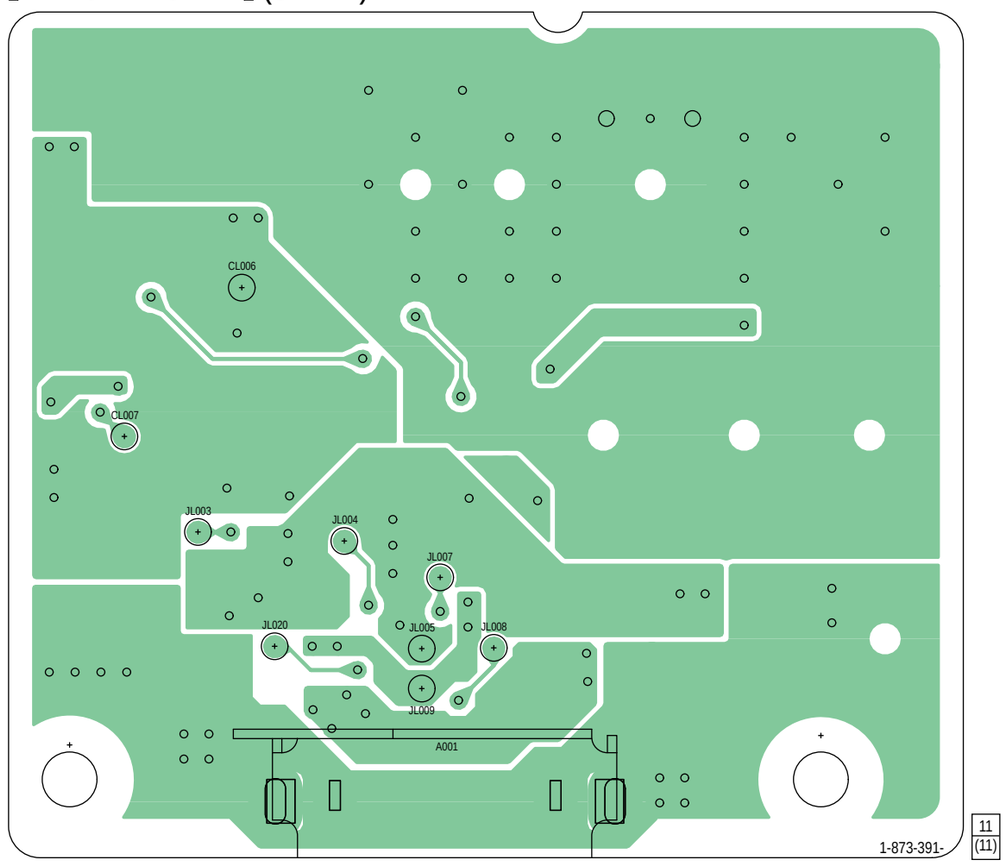
7-26. PRINTED WIRING BOARD – DMPORT Section –

• See page 42 for Circuit Boards Location. • : Uses unleaded solder.

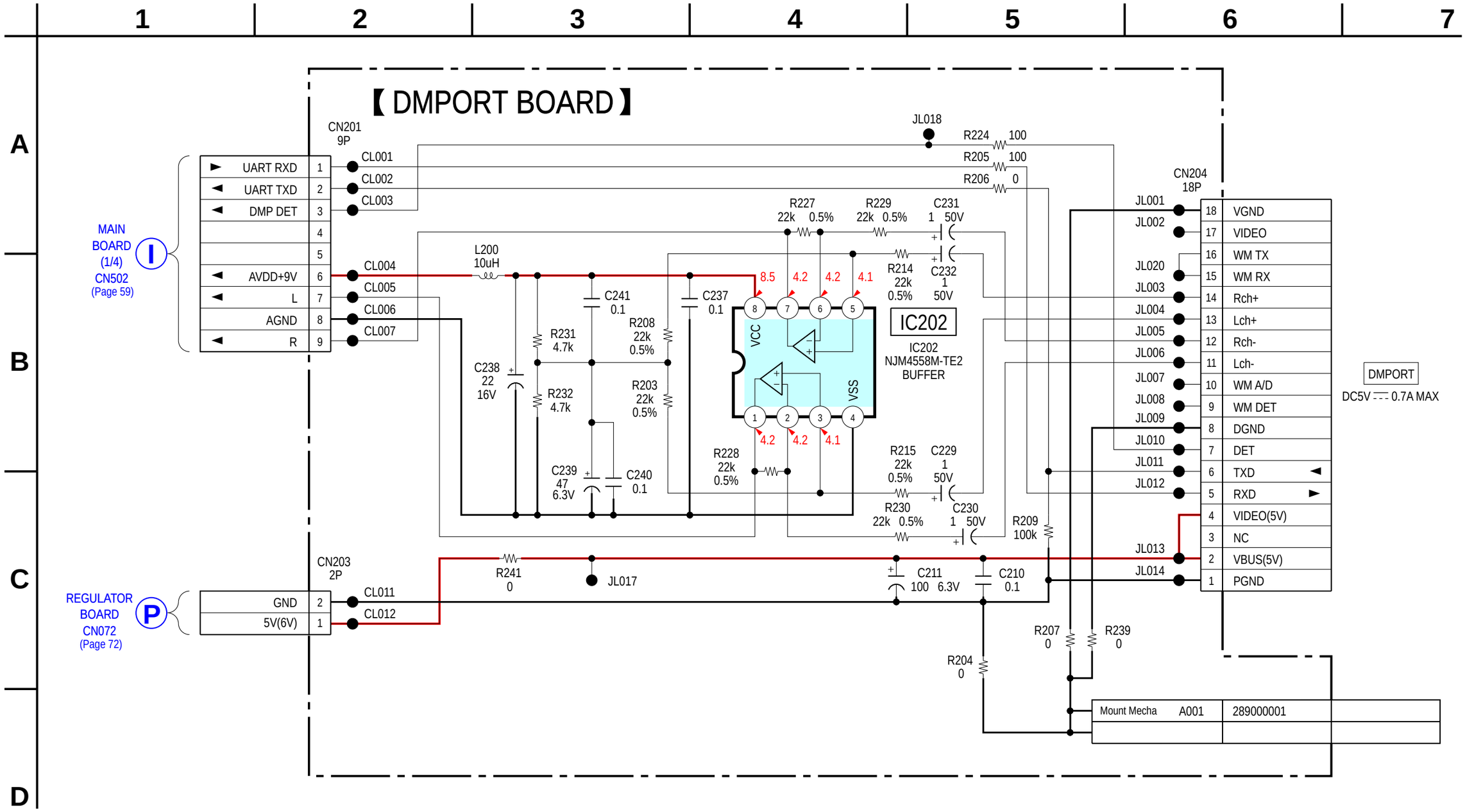
【DMPORT BOARD】(SIDE A)



【DMPORT BOARD】(SIDE B)

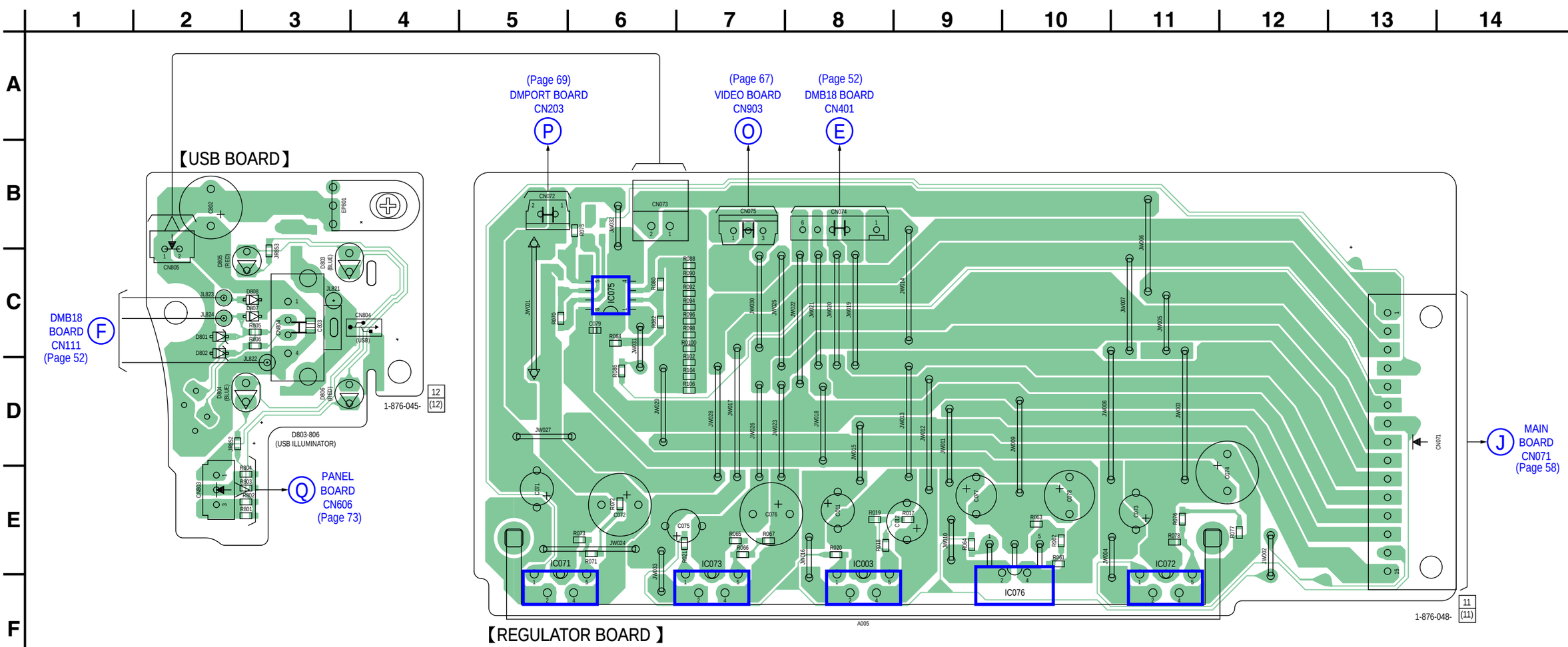


7-27. SCHEMATIC DIAGRAM – DMPORT Section –



7-28. PRINTED WIRING BOARDS – REGULATOR/USB Section –

• See page 42 for Circuit Boards Location. • : Uses unleaded solder.

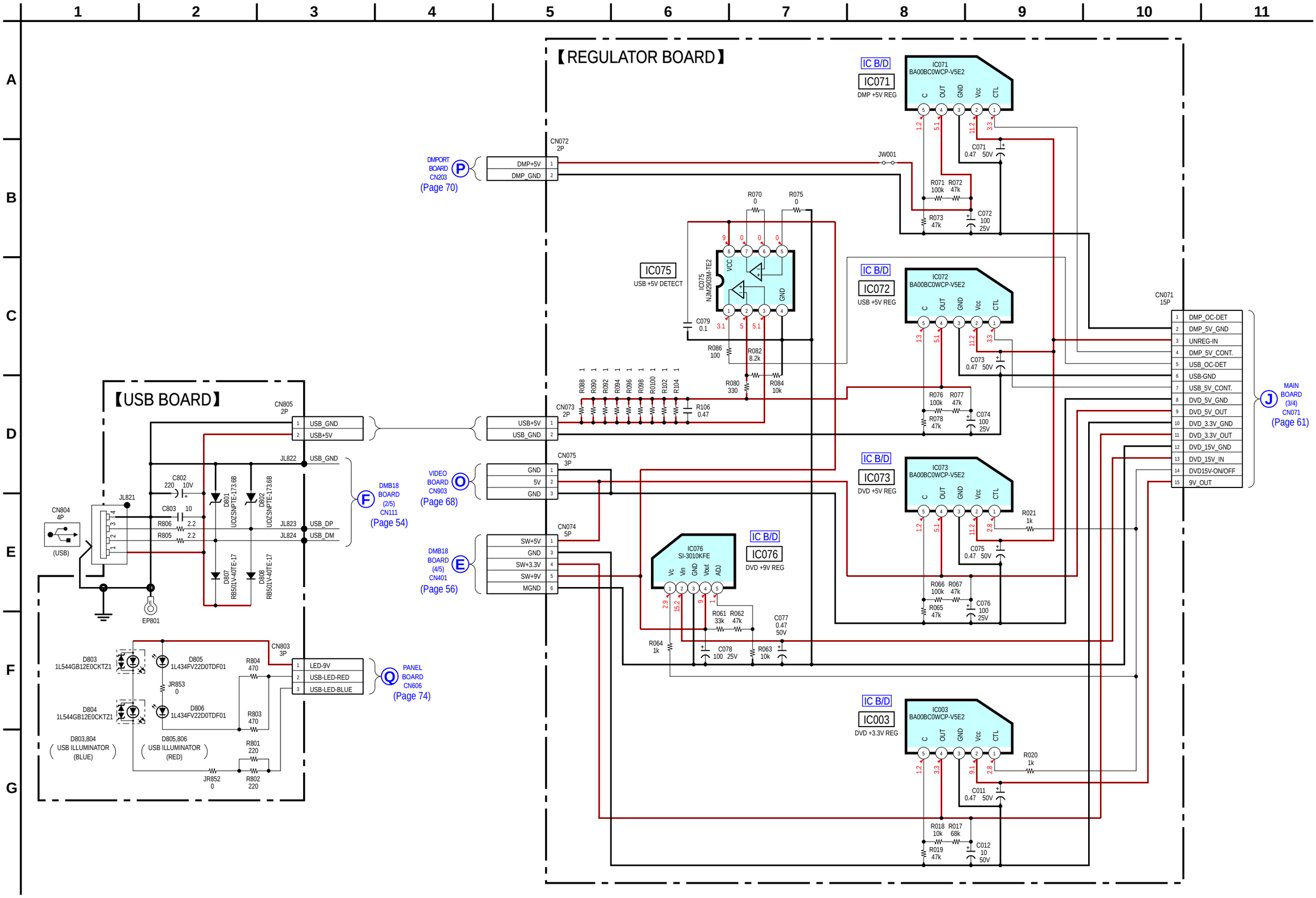


- **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D801	C-2	D806	D-3	IC071	F-5
D802	C-2	D807	C-3	IC072	F-11
D803	C-3	D808	C-3	IC073	F-7
D804	D-2			IC075	C-6
D805	C-2	IC003	F-8	IC076	F-10

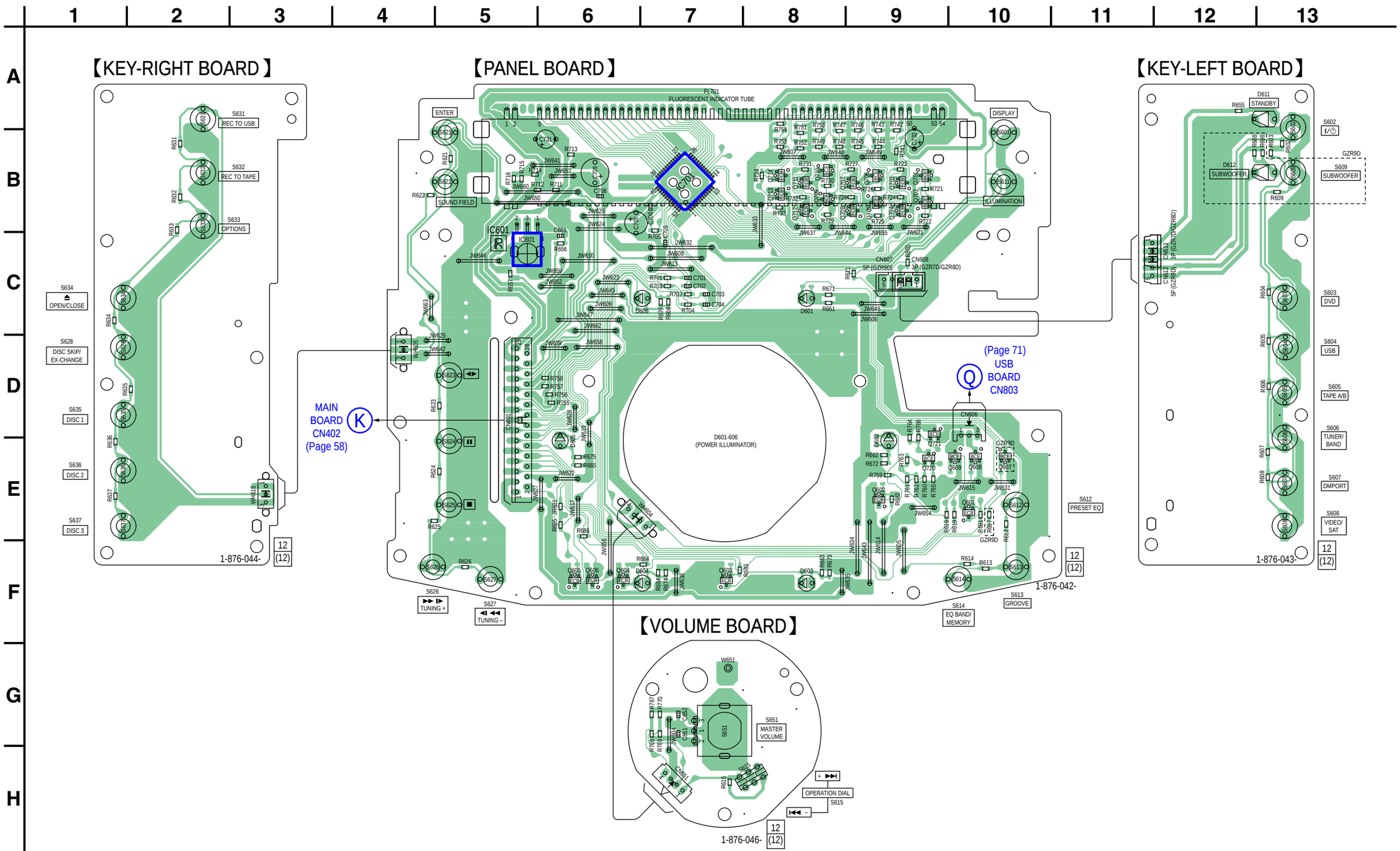
7-29. SCHEMATIC DIAGRAM – REGULATOR/USB Section –

• See page 85 for IC Block Diagrams.



7-30. PRINTED WIRING BOARDS – PANEL Section –

• See page 42 for Circuit Boards Location. • : Uses unleaded solder.

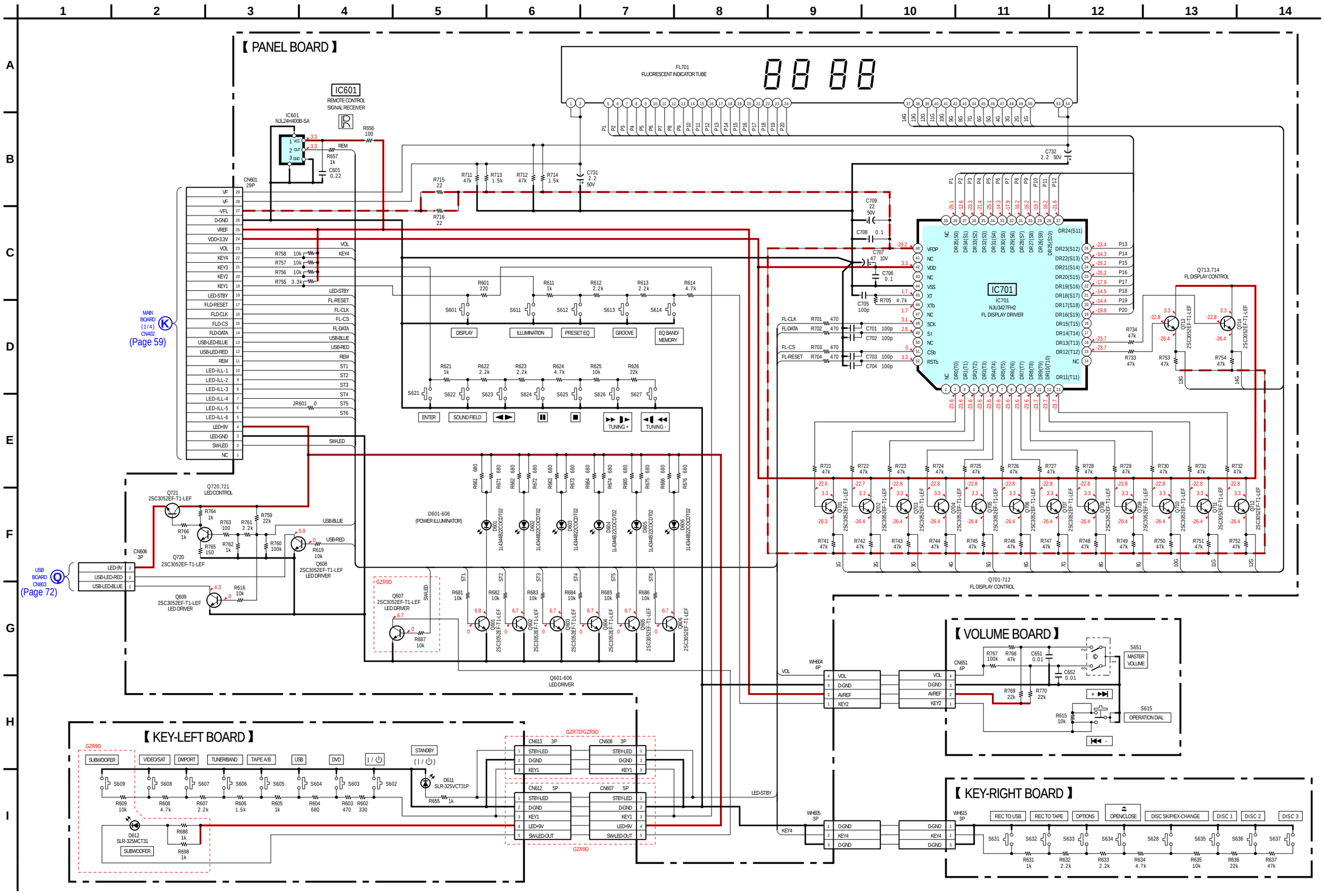


• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D601	C-8	D606	C-7	IC701	B-7	Q604	F-6	Q609	E-10	Q705	B-9	Q710	B-8	Q720	E-9
D602	E-9	D611	A-13			Q605	F-6	Q701	B-9	Q706	B-9	Q711	B-8	Q721	E-9
D603	F-8	(D612)	B-13	Q601	E-10	Q606	F-6	Q702	B-9	Q707	B-9	Q712	B-8		
D604	F-7			Q602	E-9	(Q607)	E-10	Q703	B-9	Q708	B-9	Q713	B-8		
D605	E-6	IC601	C-5	Q603	F-7	Q608	E-10	Q704	B-9	Q709	B-8	Q714	B-8		

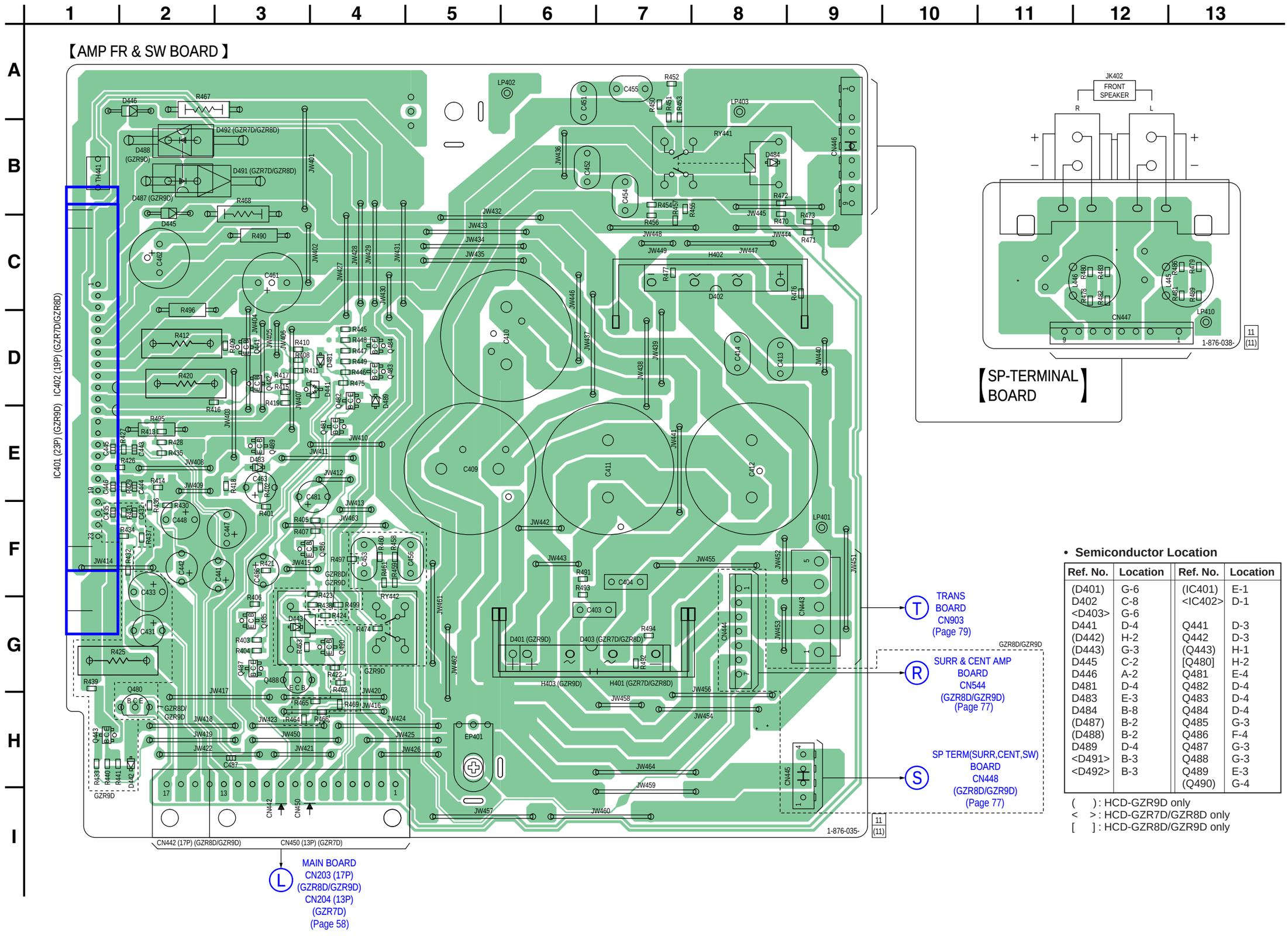
( ) : HCD-GZR9D only

7-31. SCHEMATIC DIAGRAM – PANEL Section –



7-32. PRINTED WIRING BOARDS – FRONT SPEAKER Section –

• See page 42 for Circuit Boards Location. • : Uses unleaded solder.


【AMP FR & SW BOARD】
1 2 3 4 5 6 7 8 9 10 11 12 13
A B C D E F G H I
IC401 (23P) (GZR9D) IC402 (19P) (GZR7D/GZR8D)
JK402 FRONT SPEAKER R L
【SP-TERMINAL BOARD】
1-876-038-
11 (11)
T TRANS BOARD CN903 (Page 79)
R SURR & CENT AMP BOARD CN544 (GZR8D/GZR9D) (Page 77)
S SP TERM(SURR,CENT,SW) BOARD CN448 (GZR8D/GZR9D) (Page 77)
L MAIN BOARD CN203 (17P) (GZR8D/GZR9D) CN204 (13P) (GZR7D) (Page 58)
CN442 (17P) (GZR8D/GZR9D)
CN450 (13P) (GZR7D)
GZR8D/GZR9D
GZR9D

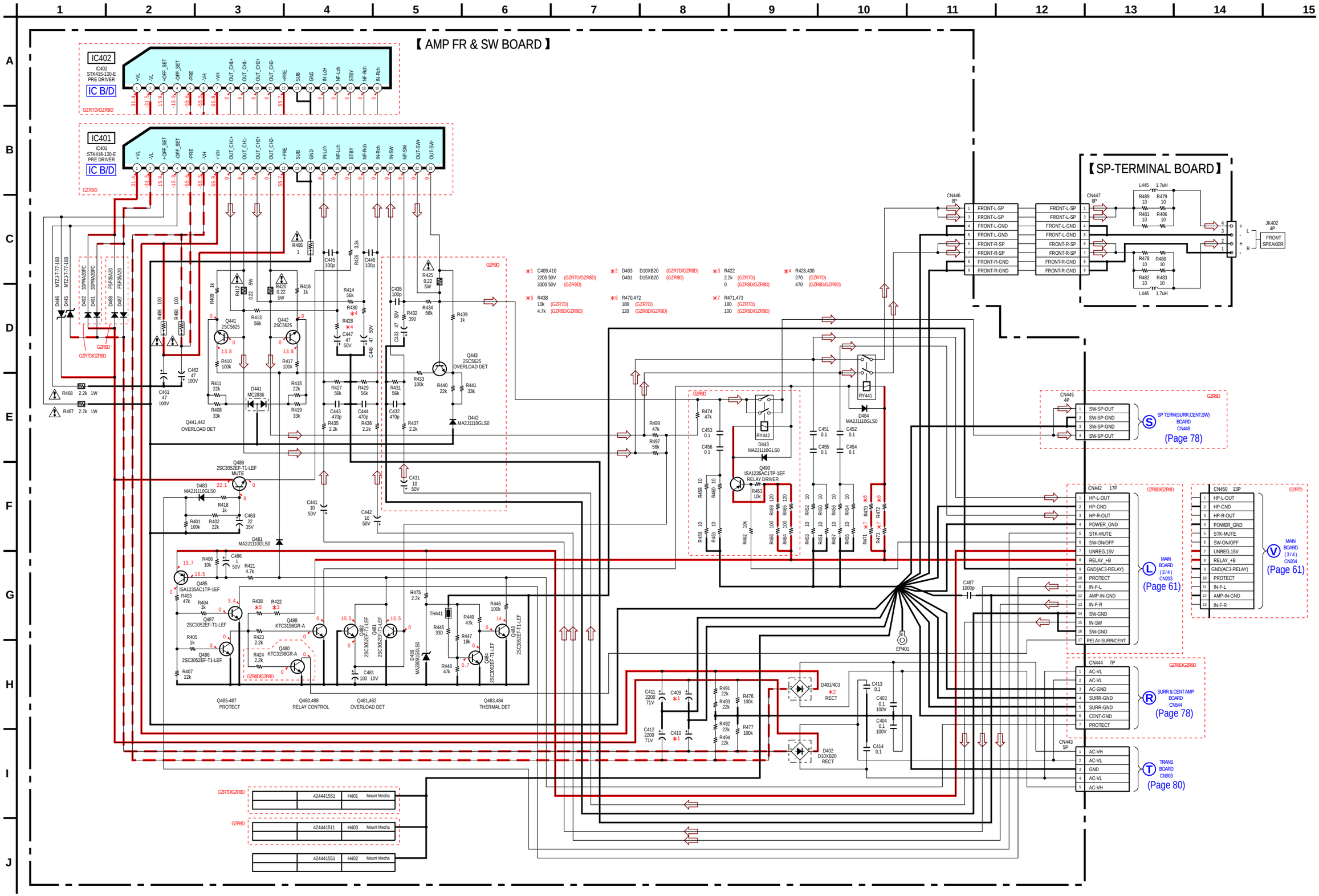
• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
(D401)	G-6	(IC401)	E-1
D402	C-8	<IC402>	D-1
<D403>	G-6		
D441	D-4	Q441	D-3
(D442)	H-2	Q442	D-3
(D443)	G-3	(Q443)	H-1
D445	C-2	[Q480]	H-2
D446	A-2	Q481	E-4
D481	D-4	Q482	D-4
D483	E-3	Q483	D-4
D484	B-8	Q484	D-4
(D487)	B-2	Q485	G-3
(D488)	B-2	Q486	F-4
D489	D-4	Q487	G-3
<D491>	B-3	Q488	G-3
<D492>	B-3	Q489	E-3
		(Q490)	G-4

( ) : HCD-GZR9D only
< > : HCD-GZR7D/GZR8D only
[ ] : HCD-GZR8D/GZR9D only

7-33. SCHEMATIC DIAGRAM – FRONT SPEAKER Section –

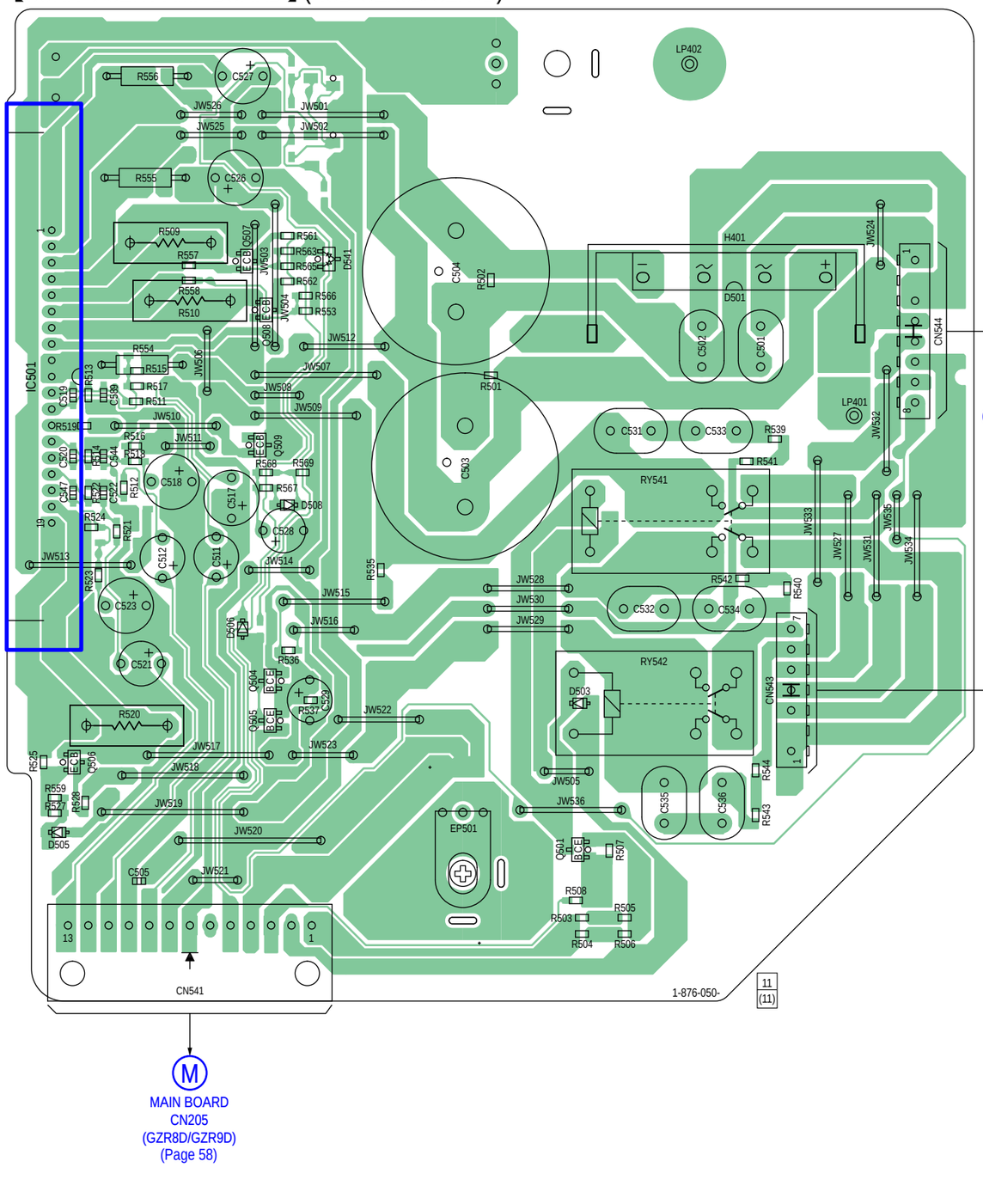
• See page 86 for IC Block Diagrams.



7-34. PRINTED WIRING BOARDS – SURROUND/CENTER SPEAKER, SUBWOOFER Section – (HCD-GZR8D/GZR9D)

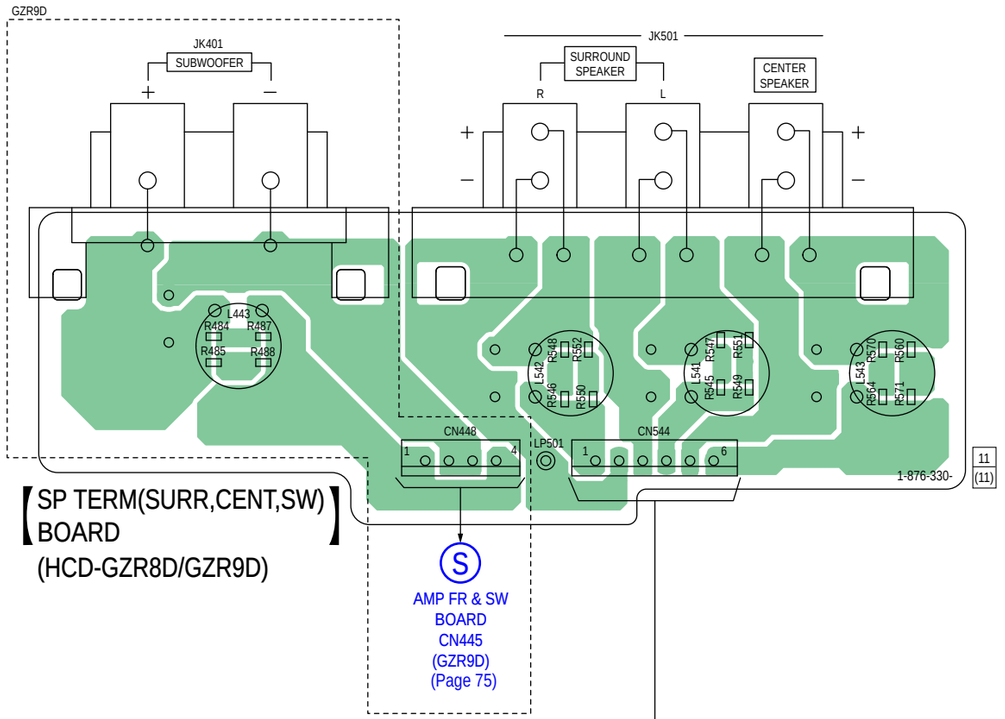
• See page 42 for Circuit Boards Location. • : Uses unleaded solder.

【SURR & CENT AMP BOARD】(HCD-GZR8D/GZR9D)



R AMP FR & SW BOARD CN444 (GZR8D/GZR9D) (Page 75)

M MAIN BOARD CN205 (GZR8D/GZR9D) (Page 58)



【SP TERM(SURR,CENT,SW) BOARD (HCD-GZR8D/GZR9D)】

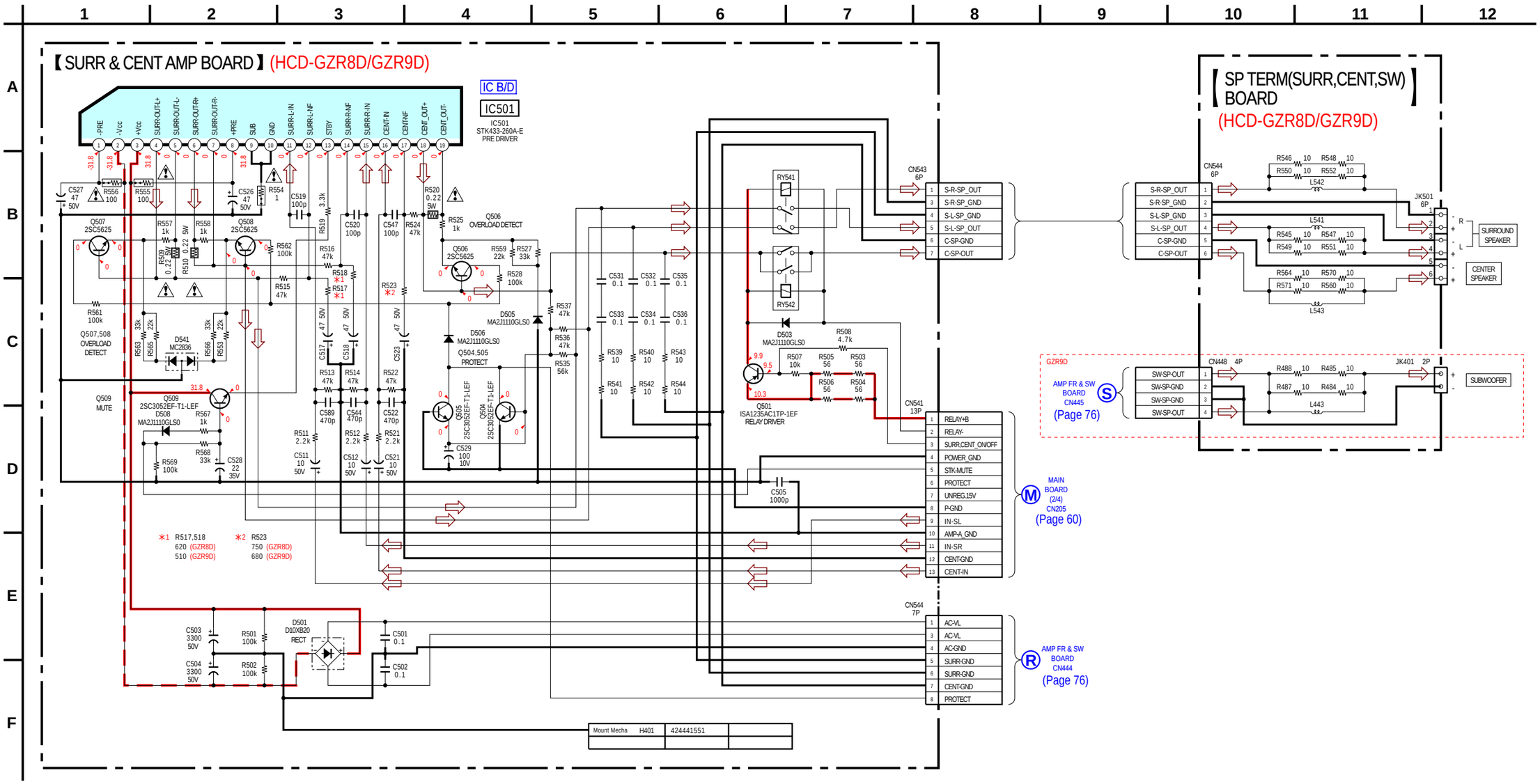
S AMP FR & SW BOARD CN445 (GZR9D) (Page 75)

• **Semiconductor Location (HCD-GZR8D/GZR9D only)**

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D501	C-6	D508	E-3	Q501	G-5	Q507	C-3
D503	F-5	D541	C-3	Q504	F-3	Q508	C-3
D505	G-1			Q505	F-3	Q509	D-3
D506	F-2	IC501	D-1	Q506	G-1		

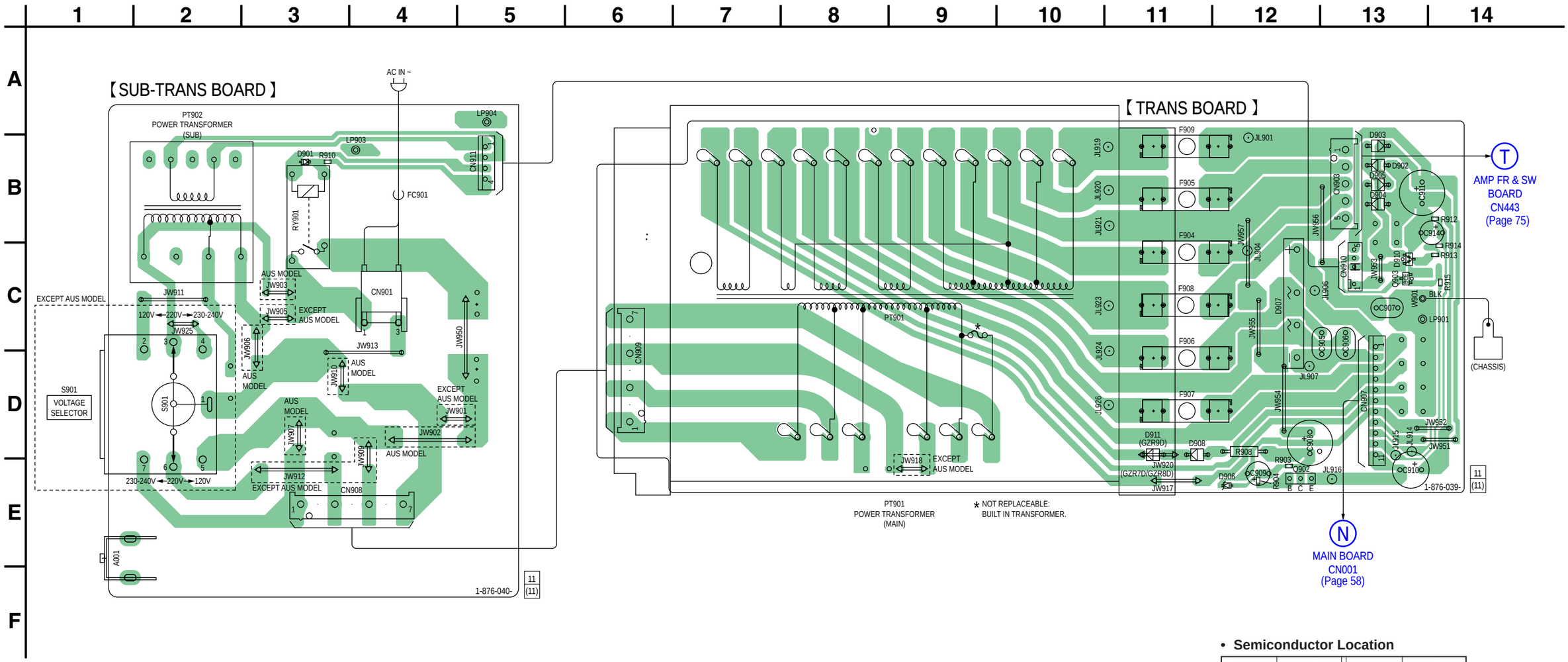
7-35. SCHEMATIC DIAGRAM – SURROUND/CENTER SPEAKER, SUBWOOFER Section – (HCD-GZR8D/GZR9D)

• See page 86 for IC Block Diagrams.



7-36. PRINTED WIRING BOARDS – POWER Section –

• See page 42 for Circuit Boards Location. • : Uses unleaded solder.

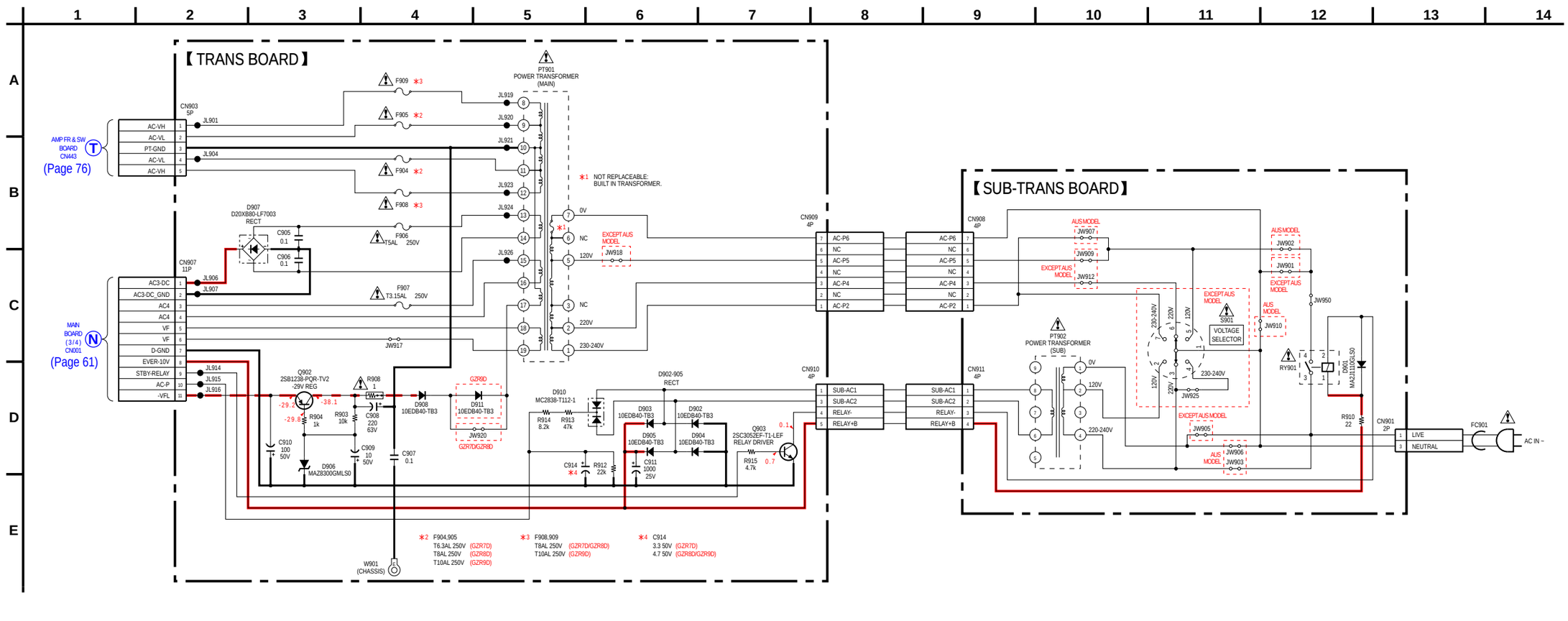


- **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D901	B-3	D908	D-11
D902	B-13	D910	C-13
D903	B-13	(D911)	D-11
D904	B-13		
D905	B-13	Q902	E-12
D906	E-12	Q903	C-13
D907	C-12		

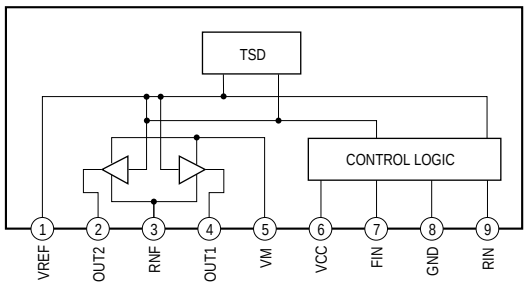
( ) : HCD-GZR9D only

7-37. SCHEMATIC DIAGRAM – POWER Section –

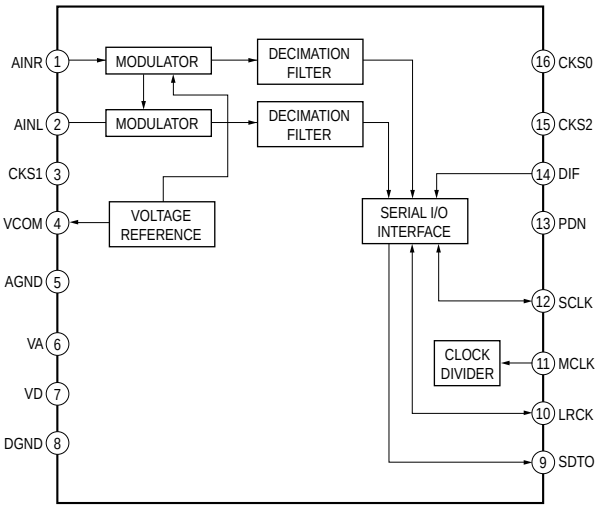


- **IC Block Diagrams**

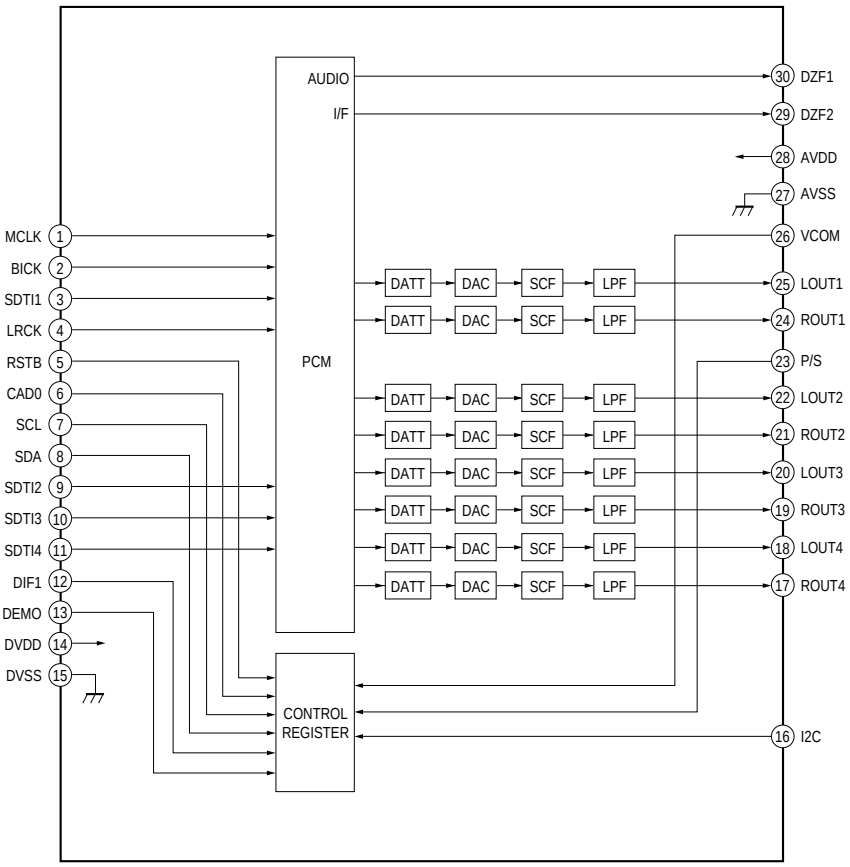
IC701 BA6956AN (DRIVER BOARD)
IC712 BA6956AN (DRIVER BOARD)



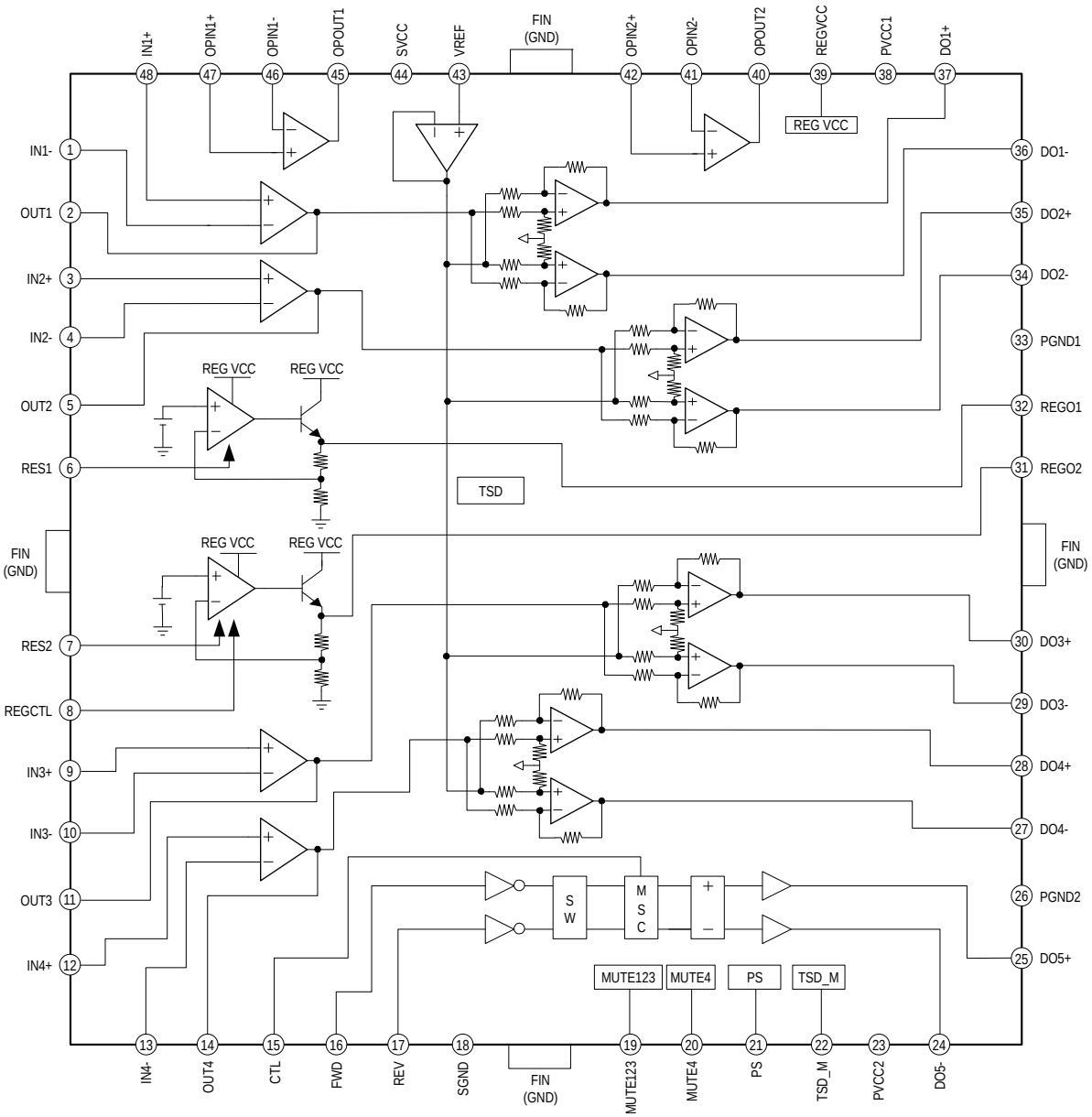
IC3601 AK5358AET-E2 (DMB18 BOARD (4/5))



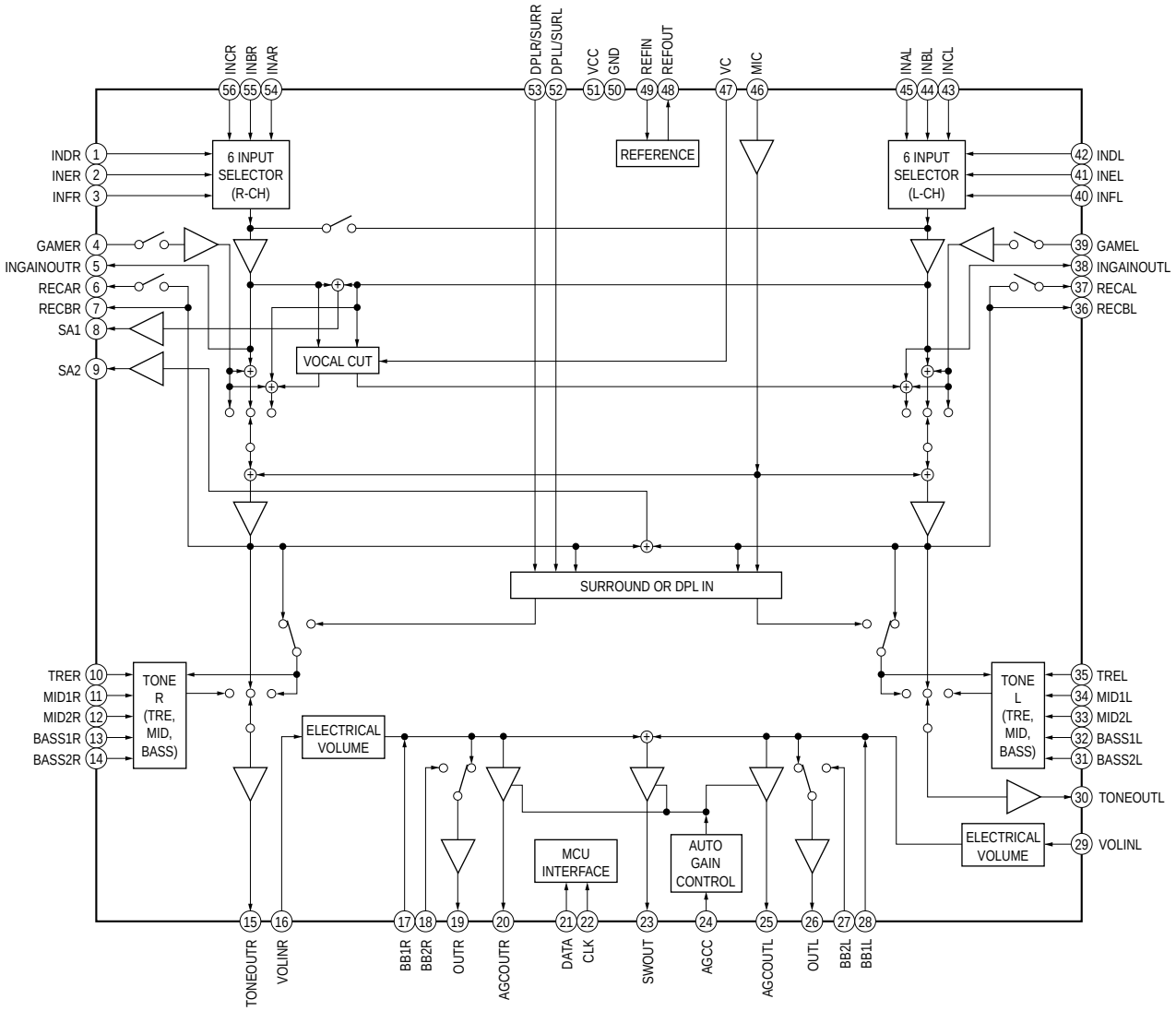
IC4602 AK4359VF-E2 (DMB18 BOARD (4/5))



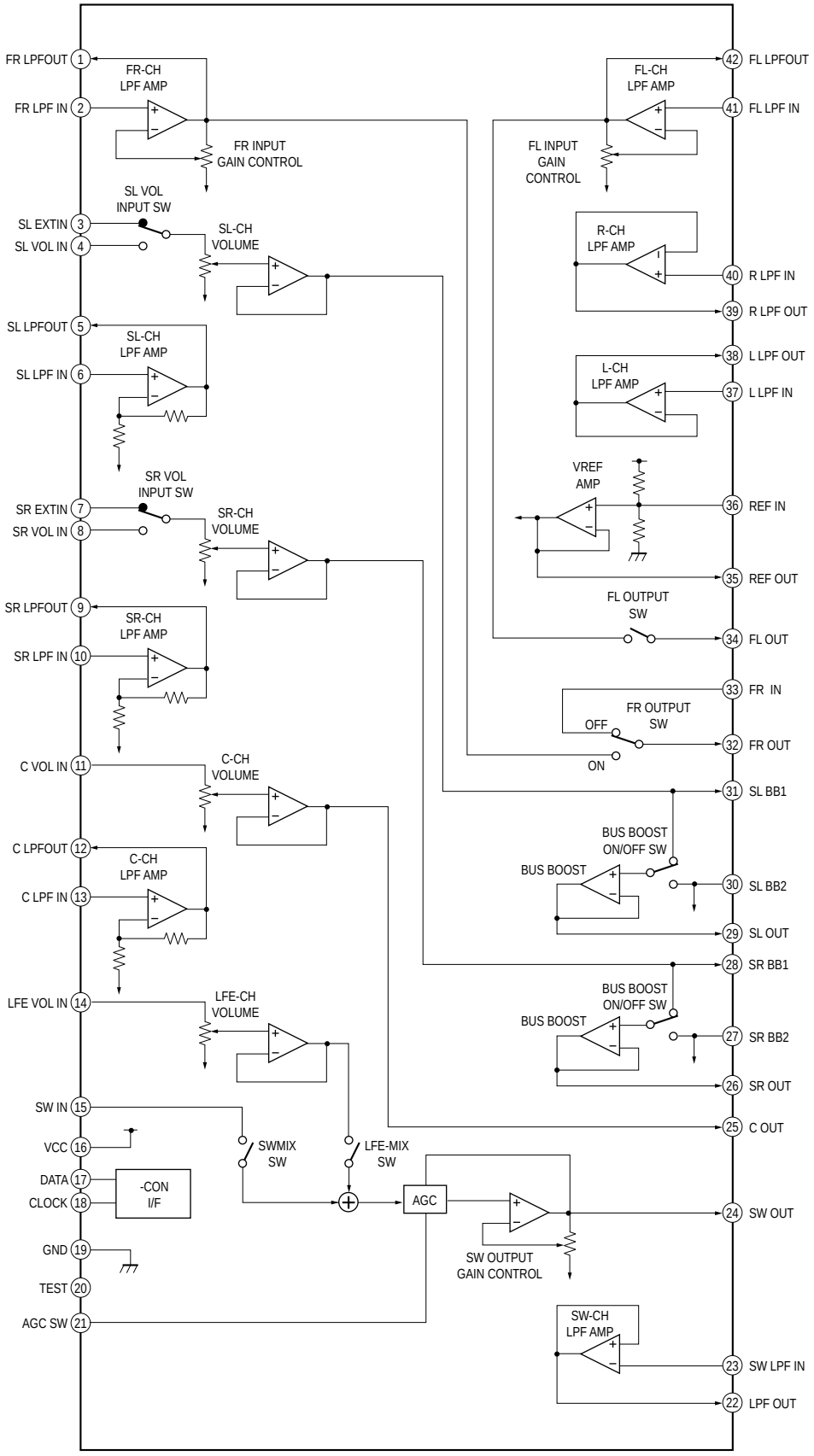
IC201 FAN8036L (DMB18 BOARD (5/5))



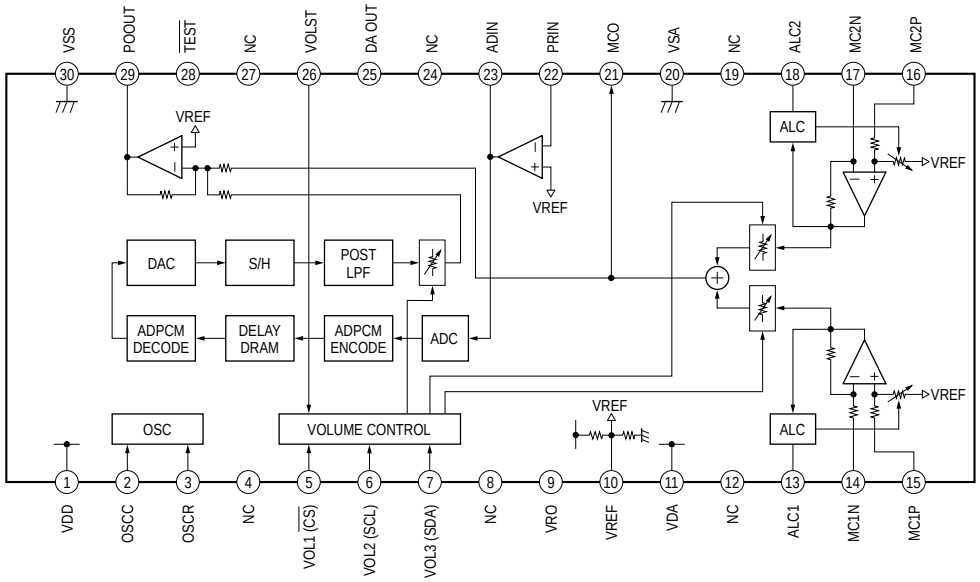
IC101 R2A15216FP (MAIN BOARD (2/4))



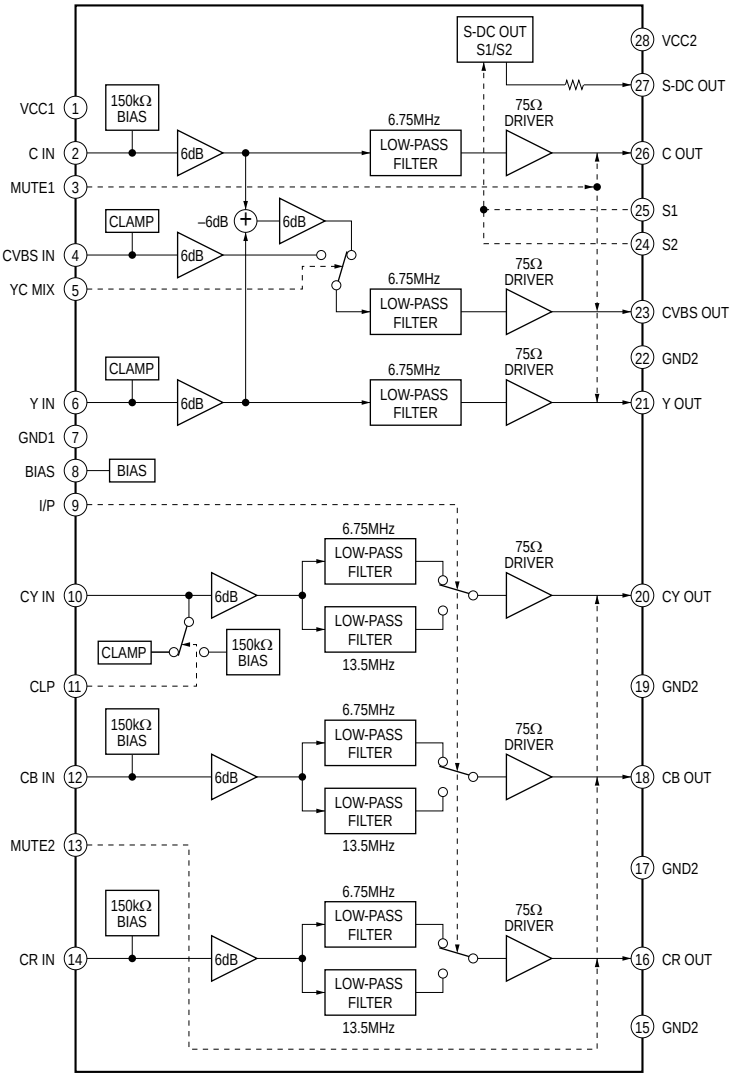
IC201 M61530FP-D60G (MAIN BOARD (2/4)) (HCD-DZR8D/DZR9D)



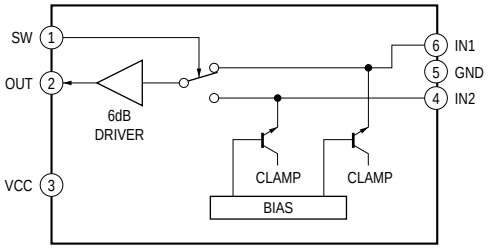
IC851 TC9488FG (MIC BOARD)



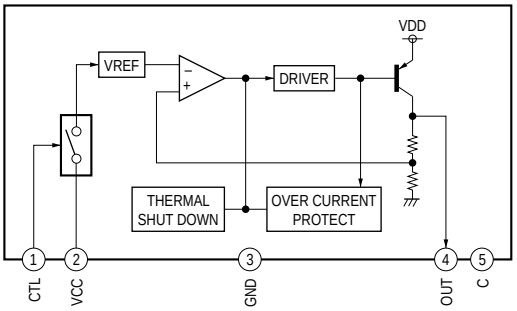
IC901 MM1758XFBE (VIDEO BOARD)



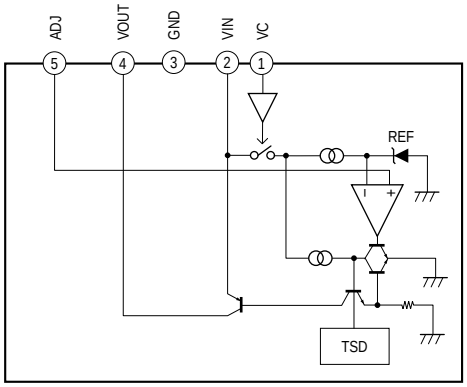
IC902 MM1508XNRE (VIDEO BOARD)



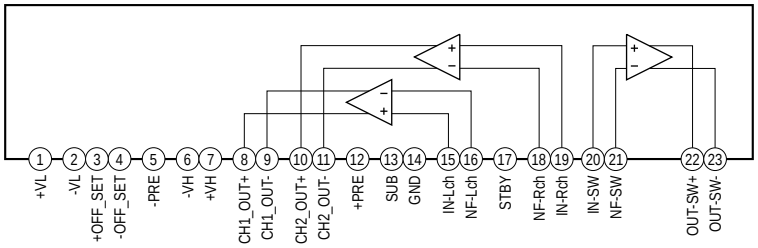
IC003 BA00BC0WCP-V5E2 (REGULATOR BOARD)
IC071 BA00BC0WCP-V5E2 (REGULATOR BOARD)
IC072 BA00BC0WCP-V5E2 (REGULATOR BOARD)
IC073 BA00BC0WCP-V5E2 (REGULATOR BOARD)



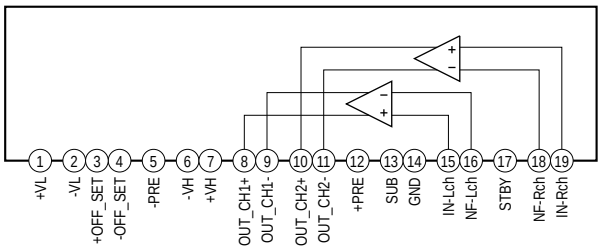
IC076 SI3010KFE (REGULATOR BOARD)



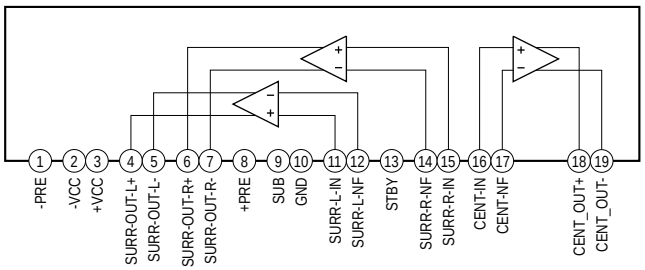
IC401 STK416-130-E (AMP FR & SW BOARD) (HCD-GZR9D)



IC402 STK415-130-E (AMP FR & SW BOARD) (HCD-GZR7D/GZR8D)



IC501 STK433-260A-E (SURR & CENT AMP BOARD) (HCD-GZR8D/GZR9D)



• IC Pin Function Descriptions

DMB18 BOARD (2/5) IC102 CXD9894R

(CD/DVD RF AMP, FOCUS/TRACKING ERROR AMP, DVD SYSTEM PROCESSOR, DIGITAL SERVO PROCESSOR)

Pin No.	Pin Name	I/O	Description
1	OSN	O	RF offset cancellation capacitor connecting pin
2	RFGC	O	RF AGC loop capacitor connecting for DVD-ROM
3	IREF	I	Current reference input
4	AVDD3	—	Analog power supply pin (+3.3 V)
5	AGND	—	Analog ground
6	DVDA	I	AC coupled input path A
7	DVDB	I	AC coupled input path B
8	DVDC	I	AC coupled input path C
9	DVDD	I	AC coupled input path D
10	DVDRFIP	I	AC coupled DVD RF signal input RFIP
11	MA	I	DC coupled main-beam RF signal input A
12	MB	I	DC coupled main-beam RF signal input B
13	MC	I	DC coupled main-beam RF signal input C
14	MD	I	DC coupled main-beam RF signal input D
15	SA	I	DC coupled sub-beam RF signal input A (Not used in this set)
16	SB	I	DC coupled sub-beam RF signal input B (Not used in this set)
17	TNI	I	3 beam satellite PD signal negative input
18	TPI	I	3 beam satellite PD signal positive input
19, 20	MDI1, MDI2	I	Laser power monitor input
21, 22	LDO2, LDO1	O	Laser driver output
23	SVDD3	—	Analog power supply pin (+3.3 V)
24	CSO	O	Central servo output (Not used in this set)
25	RFLVL	O	RFRP low pass output (Not used in this set)
26	SGND	—	Ground pin for analog circuitry
27	V2REFO	O	Reference voltage 2.8 V output
28	V2O	O	Reference voltage 2.0 V output
29	VREFO	O	Reference voltage 1.4 V output
30	FEO	O	Focus error monitor output (Not used in this set)
31	TEO	O	Tracking error monitor output (Not used in this set)
32	TEZISLV	O	TE slicing level output
33	OP_OUT	O	SPFG via op amp (Op amp output)
34	OP_INN	I	Loop back input (Op amp negative input)
35	OP_INP	I	Raw SPFG signal input (Op amp positive input)
36	DMO	O	Disc motor control output. PWM output
37	FMO	O	Feed motor control output. PWM output
38	TROPENPWM	O	Tray PWM output/tray open output (Not used in this set)
39	IOPMON	I	General A/D input → Iop monitor
40	TRO	O	PDM output of tracking servo compensator
41	FOO	O	PDM output of focus servo compensator
42	AGND18	—	Analog ground pin for DMPLL
43	AVDD18	—	Analog power supply pin (+1.8 V) for DMPLL
44	USB_DP	I/O	USB port DPLUS pin
45	USB_DM	I/O	USB port DMINUS pin
46	USB_VDD3	—	Power supply pin (+3.3 V) for USB
47	USB_VSS	—	Ground pin for USB
48	PAD_VRT	I/O	USB generating reference current
49	USB_VDD18	—	Power supply pin (+1.8 V) for USB
50	USB_VSS	—	Ground pin for USB
51	DIR_ERROR	I	PLL lock error, input data error detection from DIR (L: non error)
52	DIR_AUDIO	I	PCM/non PCM detection input from DIR (L: PCM)
53	LIMITSW	I	Limit switch detection input
54	MSW	O	Media switch output (L: CD, H: DVD)
55	DVDD18	—	Power supply pin (+1.8 V) for internal digital circuitry

Pin No.	Pin Name	I/O	Description
56 to 62	HA2 to HA8	O	Host address output bit 2 to 8
63, 64	HA18, HA19	O	Host address output bit 18, 19
65	DVDD3	—	Power supply pin (+3.3 V) for internal digital circuitry
66	XWR	O	Write enable output (active Low)
67 to 74	HA16 to HA9	O	Host address output bit 16 to 9
75	HA20	O	Host address output bit 20
76	XROMCS	O	Chip select output (active Low)
77	HA1	O	Host address output bit 1
78	XRD	O	Read enable output (active Low)
79, 80	HD0, HD1	O	Host data output bit 0, 1
81	DVSS	—	Ground pin for internal digital circuitry
82 to 86	HD2 to HD6	O	Host data output bit 2 to 6
87	HA21	O	Host address output bit 21
88	RESERVED	O	Not used. (Open)
89	HD7	O	Host data output bit 7
90	DVSS	—	Ground pin for internal digital circuitry
91	HA17	O	Host address output bit 17
92	HA0	O	Host address output bit 0
93	DVDD18	—	Power supply pin (+1.8 V) for internal digital circuitry
94	FWD	O	Forward signal output for loading motor driver (Not used in this set)
95	REV	O	Reserve signal output for loading motor driver (Not used in this set)
96	DVDD3	—	Power supply pin (+3.3 V) for internal digital circuitry
97	IFSDO	O	External CPU serial data output (H/W method)
98	IFCK	O	External CPU serial clock output (H/W method)
99	xIFCS	O	External CPU serial chip select output (active Low, H/W method)
100	IFSDI	I	External CPU serial data input (H/W method)
101	SCL	O	I2C clock output for EEPROM
102	SDA	O	I2C data output for EEPROM
103	CKSW	I	Chucking switch detection input (Not used in this set)
104	OCSW	I	Open/close switch detection input (Not used in this set)
105	RXD	I	Hardwired RS232C RXD input
106	TXD	O	Hardwired RS232C TXD output
107	ICE	I	ICE mode enable input (Not used in this set)
108	xSYSRST	I	MT1389 reset input (active Low)
109	RESERVED	I	Not used. (Open)
110	xIFBSY	I	External CPU ready/busy interrupt signal input (L: ready, H: busy)
111	DQM0	O	Mask for DRAM output byte 0
112	EEWP	O	EEPROM write protect control output (L: write allowed)
113 to 117	RD7 to RD3	O	DRAM data output bit 7 to 3
118	DVDD3	—	Power supply pin (+3.3 V) for internal digital circuitry
119 to 121	RD2 to RD0	O	DRAM data output bit 2 to 0
122 to 129	RD15 to RD8	O	DRAM data output bit 15 to 8
130	TSD_M	I	Thermal shutdown monitor input
131	DVDD3	—	Power supply pin (+3.3 V) for internal digital circuitry
132	DQM1	O	Mask for DRAM output byte 1
133	_RWE	O	DRAM write enable output
134	_CAS	O	DRAM column address strobe output
135	_RAS	O	DRAM row address strobe output
136	_RCS	O	DRAM chip select output
137, 138	BA0, BA1	O	DRAM bank address output 0, 1
139	RA10	O	DRAM address output bit 10
140, 141	RA0, RA1	O	DRAM address output bit 0, 1
142	DVDD18	—	Power supply pin (+1.8 V) for internal digital circuitry
143, 144	RA2, RA3	O	DRAM address output bit 2, 3
145	DVDD3	—	Power supply pin (+3.3 V) for internal digital circuitry
146	DRCLK	O	DRAM clock output

Pin No.	Pin Name	I/O	Description
147	CKE	O	DRAM clock enable output
148	DVSS	—	Ground pin for internal digital circuitry
149	RA11	O	DRAM address output bit 11
150 to 155	RA9 to RA4	O	DRAM address output bit 9 to 4
156	DVDD3	—	Power supply pin (+3.3 V) for internal digital circuitry
157	MUTE123	O	Mute signal output for other motor drivers (SL, TRK, FCS)
158	MUTE	O	Mute signal output for spindle motor driver
159	DDC_DA	I/O	HDMI DDC line SDA
160	DVDD18	—	Power supply pin (+1.8 V) for internal digital circuitry
161	DDC_CLK	I/O	HDMI DDC line CLK
162	HTPLG	I	Hot plug detection input
163	AGND3	—	Analog ground pin for HDMI TX
164	EXT_RES	I	External resistor for HDMI TX
165, 166	AVDD3	—	Analog power supply pin (+3.3 V) for HDMI TX
167	EXT_CAP	I	External capacitor for HDMI TX
168	AGND3	—	Analog ground pin for HDMI TX
169	AGND18	—	Analog ground pin for HDMI TX
170	TXCN	O	Negative TX CLK output (Not used in this set)
171	TXCP	O	Positive TX CLK output (Not used in this set)
172	AVDD18	—	Analog power supply pin (+1.8 V) for HDMI TX
173	TX0N	O	Negative TX 0CH output (Not used in this set)
174	TX0P	O	Positive TX 0CH output (Not used in this set)
175	AGND18	—	Analog ground pin for HDMI TX
176	TX1N	O	Negative TX 1CH output (Not used in this set)
177	TX1P	O	Positive TX 1CH output (Not used in this set)
178	AVDD18	—	Analog power supply pin (+1.8 V) for HDMI TX
179	TX2N	O	Negative TX 2CH output (Not used in this set)
180	TX2P	O	Positive TX 2CH output (Not used in this set)
181	AGND18	—	Analog ground pin for HDMI TX
182	R/Cr/Pr	O	Red or CR output
183	B/Cb/Pb	O	Blue or CB output
184	DACVSSA	—	Ground pin for video DAC circuitry
185	Y/G	O	Green or Y output
186	DACVDDA	—	Power supply pin (+3.3 V) for video DAC circuitry
187	CVBS	O	Analog composite output
188	DACVSSB	—	Ground pin for video DAC circuitry
189	C	O	Analog chroma output
190	DACVDDB	—	Power supply pin (+3.3 V) for video DAC circuitry
191	Y	O	Analog Y output
192	DACVSSC	—	Ground pin for video DAC circuitry
193	FS	I	Full scale adjustment input
194	VREF	I	Bandgap reference voltage (Not used in this set)
195	DACVDDC	—	Power supply pin (+3.3 V) for video DAC circuitry
196	VBUS_OE	O	VBUS control output enable output (L: output disable, H: output enable)
197	VBUS_OC	I	VBUS control over current input (L: over, H: non over)
198	SCORE	I	Calculation input of SCORE
199	DAC_SDA	I	SDA input from DIR
200	DAC_SCL	I	SCL input from DIR
201	SPLRCK	I	LRCK input from DIR (Fixed at L in this set)
202	SPDATA	I	Audio data input from DIR (Fixed at L in this set)
203	ACLK	O	Master clock output for audio DAC
204	ABCK	O	Audio bit clock output
205	ALRCK	O	Audio left/right channel clock output
206	ADIN	I	External analog audio data input
207	DVDD3	—	Power supply pin (+3.3 V) for video DAC digital circuitry
208	MIC	I	Karaoke microphone detection signal input (L: mic removed, H: mic exist)

Pin No.	Pin Name	I/O	Description
209	WIDE	O	Voltage select output signal for S terminal (L; 4:3, H; 16:9)
210	RGB_SEL/DSEL	O	RGB select output (L: RGB enable, H: RGB disable)
211	TRG_SW	I	Slot in mechanism trigger switch detection input (Fixed at L in this set)
212	DVDD18	—	Power supply pin (+1.8 V) for internal digital circuitry
213	KMOD	O	Karaoke mode status output (L: normal, H: karaoke)
214	XVOICE	I	MIC signal detection input (L: voice is absence, H: voice exist)
215	SPDIF	O	SPDIF output (HCD-GZR7D only)
216	APLLVDD3	—	Power supply pin (+3.3 V) for audio clock circuitry
217	APLLCAP	I	APLL external capacitance conection
218	APLLVSS	—	Ground pin for audio clock circuitry
219	ADACVSS2	—	Ground pin for audio DAC
220	ADACVSS1	—	Ground pin for audio DAC
221	AUD_LFE/DAC_XRST	O	Audio LFE output/DAC XRST output
222	AUD_RS/ASDATA3	O	Audio surround R output/audio serial data 3 output: down mixed L/R
223	AUD_R/ASDATA2	O	Audio front R output/audio serial data 2 output: center/LFE
224	AVCM	—	Audio DAC reference voltage
225	AUD_L/ASDATA1	O	Audio front L output/audio serial data 1 output: surround L/R
226	AUD_LS/ASDATA0	O	Audio surround L output/audio serial data 0 output: front L/R
227	AUD_C	O	Audio center output (Not used in this set)
228	ADACVDD1	—	Power supply pin (+3.3 V) for audio DAC
229	ADACVDD2	—	Power supply pin (+3.3 V) for audio DAC
230	Rt	O	Analog audio down mixed Rt ch output (Fixed at L in this set)
231	Lt	O	Analog audio down mixed Lt ch output (Not used in this set)
232	ADACVSS3	—	Ground pin for audio DAC
233	ADACVDD3	—	Power supply pin (+3.3 V) for audio DAC
234	SADCVDD18	—	Power supply pin (+1.8 V) for SACD ADC
235	SADCVSS18	—	Ground pin for SACD ADC
236	RFGND18	—	Ground pin for RF analog circuitry
237	RFVDD18	—	Power supply pin (+1.8 V) for RF analog circuitry
238	XTALO	O	Crystal output (27 MHz)
239	XTALI	I	Crystal input (27 MHz)
240	JITFO	O	RF jitter meter output
241	JITFN	I	RF jitter meter input
242	PLLVSS	—	Ground pin for data PLL and related analog circuitry
243	PLLVDD3	—	Power supply pin (+3.3 V) for data PLL and related analog circuitry
244	LPFON	O	Loop filter amplifier negative output
245	LPFIP	I	Loop filter amplifier positive input
246	LPFIN	I	Loop filter amplifier negative input
247	LPFOP	O	Loop filter amplifier positive output
248	ADCVDD3	—	Power supply pin (+3.3 V) for ADC circuitry
249	ADCVSS	—	Ground pin for ADC circuitry
250	RFVDD3	—	Power supply pin (+3.3 V) for RF analog circuitry
251	RFRPDC	O	RF ripple detection output
252	RFRPAC	I	RF ripple detection input (through AC-coupling)
253	HRFZC	I	High frequency RF ripple zero crossing input
254	CRTPLP	O	Defect level filter capacitor connecting
255	RFGND18	—	Ground pin for RF digital circuitry
256	OSP	O	RF offset cancellation capacitor connecting pin

MAIN BOARD (1/4) IC401 μPD78F1106GF(S)-GAS-AX (SYSTEM CONTROL)

Pin No.	Pin Name	I/O	Description
1	$\overline{\text{O-FRONT-A-MUTE}}$	O	Front speaker output mute (L: mute ON)
2	$\overline{\text{O-SURR-A-MUTE}}$	O	Surround speaker output mute (L: mute ON) (HCD-GZR8D/GZR9D)
3	$\overline{\text{O-CENTER-A-MUTE}}$	O	Center speaker output mute (L: mute ON) (HCD-GZR8D/GZR9D)
4	$\overline{\text{O-SW-A-MUTE}}$	O	Subwoofer output mute (L: mute ON)
5	REC-REV	I	Tape deck signal input
6	O-TC-B-TRIG	O	Tape deck B trigger plunger control signal output
7	O-EEP-SCL	O	EEPROM communication (Clock) signal output
8	O-EEP-SDA	I/O	EEPROM communication (Data) signal input/output
9	O-DMP-SW	O	DMP adaptor power supply control signal output (H: power supply)
10	O-TC-A-TRIG	O	Tape deck A trigger plunger control signal output
11	O-VIDEO-SEL	O	Video output select signal output (L: signal input from DMB18 board, H: signal input from VIDEO/SAT (VIDEO IN))
12	O-VIDEO-MUTE	O	Video output mute signal output (L: mute ON)
13	$\overline{\text{I-AC-CUT}}$	I	AC cut decision signal input (L: AC cut)
14	O-TC-CAPM-CNT	O	Capstan motor control signal output
15	O-AUDIO_IC-DATA	O	R2A15216FP (IC101) communication (Data) signal output
16	O-AUDIO_IC-CLK	O	R2A15216FP (IC101) communication (Clock) signal output
17	O-TC-REC/PB_SW	O	Tape deck control signal output
18	O-TC-REC-MUTE	O	Tape deck B recording mute signal output
19	O-TC-REC-BIAS	O	Recording bias control signal output
20	EVss1	—	Ground
21	O-STK-MUTE	O	Surround/center speaker amp ON/OFF signal output (H: amp ON) (HCD-GZR8D/GZR9D)
22	I-DMP-OVER-CUR-RENT	I	Not used. (Fixed at H in this set)
23	O-SUR&CEN-SP-RE-LAY	O	Surround/center speaker relay control signal output (L: relay ON) (HCD-GZR8D/GZR9D)
24	O-DVD-POWER	O	DMB18 board power supply control signal output
25	O-FRONT-SP-RELAY	O	Front speaker relay control signal output (L: relay ON)
26	O-TU-DI	O	Tuner IC communication (Data: MCU → TUNER) signal output
27	O-TU-CLK	O	Tuner IC communication (Clock) signal output
28	I-TU-DO	I	Tuner IC communication (Data: MCU ← TUNER) signal input
29	O-TU-CE	O	Tuner IC communication (Chip enable) signal output
30	EVdd1	—	Power supply pin (+3.3 V)
31	I-TU-TUNE	I	Tuner tuned data input
32	I-CDM-OPEN	I	Disc tray open signal input (L: open)
33	I-CDM-TBL-ADR-SW	I	Disc tray position signal input
34	O-CDM-TM-F	O	Disc table motor control signal output
35	O-CDM-TM-R	O	Disc table motor control signal output
36	O-CDM-LM-F	O	Disc tray motor control signal output
37	O-CDM-LM-R	O	Disc tray motor control signal output
38	O-SW-SP-RELAY	O	Subwoofer relay control signal output (L: relay ON)
39	I-DVD-KRMOD	I	Karaoke mode signal input (H: ON)
40	O-MTK-MICREQ	O	MIC IN information signal output (H: MIC IN, MCU → DMB18 board) signal output
41	O-MTK-IFBSY	O	Interface busy signal output
42	O-MTK-MTRST	O	MTK IC reset signal output (L: reset)
43	I-DVD-XIFS	I	Communication signal input from DMB18 board
44	O-MTK-DATA	O	Communication (Data: MCU → DMB18 board) signal output for DMB18 board
45	I-MTK-DATA	I	Communication (Data: MCU ← DMB18 board) signal input from DMB18 board
46	I-MTK-CLK	I	Communication (Clock) signal input from DMB18 board
47	AVref1	—	Analog reference voltage (+3.3 V)
48	O-FAN	O	Fan motor control signal output
49	O-STBY-RELAY	O	Main power relay signal output (H: relay ON)
50	AVref0	—	Analog reference voltage (+3.3 V)
51	AVss	—	Analog ground

Pin No.	Pin Name	I/O	Description
52	I-POWER-MONITOR(ACP)	I	Power monitor signal input
53	I-MODEL	I	Model identification signal input
54	I-SUFFIX	I	Destination identification signal input
55	DVD-POWER-MONITOR(3.3V)	I	DVD power monitor signal input
56	I-CDM-ENC(E1,E2,E3)	I	Disc tray signal input
57	I-MIC/HP-DET	I	Mic in/headphone signal input
58	I-VACS	I	VACS signal input
59	I-ILLUMINATION	I	Audio level signal input for illumination
60	I-TC-STAT(A-HALF/B-HALF/REC-FWD)	I	Tape deck signal input
61	USB-LEVEL-SINK-DET	I	Not used. (Connect to AVss)
62	I-DMP-DET	I	DMPORT detection signal input
63	I-VOL	I	Volume signal input
64	I-KEY4	I	Key 4 signal input
65	I-KEY3	I	Key 3 signal input
66	I-KEY2	I	Key 2 signal input
67	I-KEY1	I	Key 1 signal input
68	O-LED-STBY	O	STANDBY LED control signal output (H: light ON)
69	O-FLD-RESET	O	FL display driver IC control (Reset) signal output
70	O-FLD-CLK	O	FL display driver IC control (Clock) signal output
71	O-FLD-CHIPSELECT	O	FL display driver IC control (Chip select) signal output
72	O-FLD-DATA	O	FL display driver IC control (Data) signal output
73	O-VOL-IC-CLK	O	M61530FP-D60G (IC201) control (Clock) signal output (HCD-GZR8D/GZR9D)
74	TC-A-SHUT	I	Deck A shut off signal input
75	TC-B-SHUT	I	Deck B shut off signal input
76	O-DMP-DATA	O	DMPORT adaptor control (Data: MCU → DMPORT) signal output
77	I-DMP-DATA	I	DMPORT adaptor control (Data: MCU ← DMPORT) signal input
78	O-VOL-IC-DATA	O	M61530FP-D60G (IC201) control (Data) signal output (HCD-GZR8D/GZR9D)
79	USB-LED-BLUE	O	USB illuminator LED (Blue) control signal output
80	USB-LED-RED	O	USB illuminator LED (Red) control signal output
81	I-RMC	I	Remote control signal receiver sircs signal input
82	O-LED-ILL1	O	Power illuminator LED 1 control signal output
83	I-KEYWAKE-UP	I	Power key interrupt signal input
84	O-LED-ILL2	O	Power illuminator LED 2 control signal output
85	O-LED-ILL3	O	Power illuminator LED 3 control signal output
86	O-LED-ILL4	O	Power illuminator LED 4 control signal output
87	O-LED-ILL5	O	Power illuminator LED 5 control signal output
88	O-LED-ILL6	O	Power illuminator LED 6 control signal output
89	SI/SO	I/O	Data input/output for tool
90	$\overline{\text{RESET}}$	I	System reset signal input
91	XT2	I	Sub system clock signal input (32.768 kHz)
92	XT1	O	Sub system clock signal output (32.768 kHz)
93	FLMD0	I	FL mode setting signal input
94	X2	I	Main system clock signal input (20 MHz)
95	X1	O	Main system clock signal output (20 MHz)
96	REGC	—	Regulator ripple capacitor connecting
97	Vss	—	Ground
98	EVss	—	Ground
99	Vdd	—	Power supply pin (+3.3 V)
100	EVdd0	—	Power supply pin (+3.3 V)

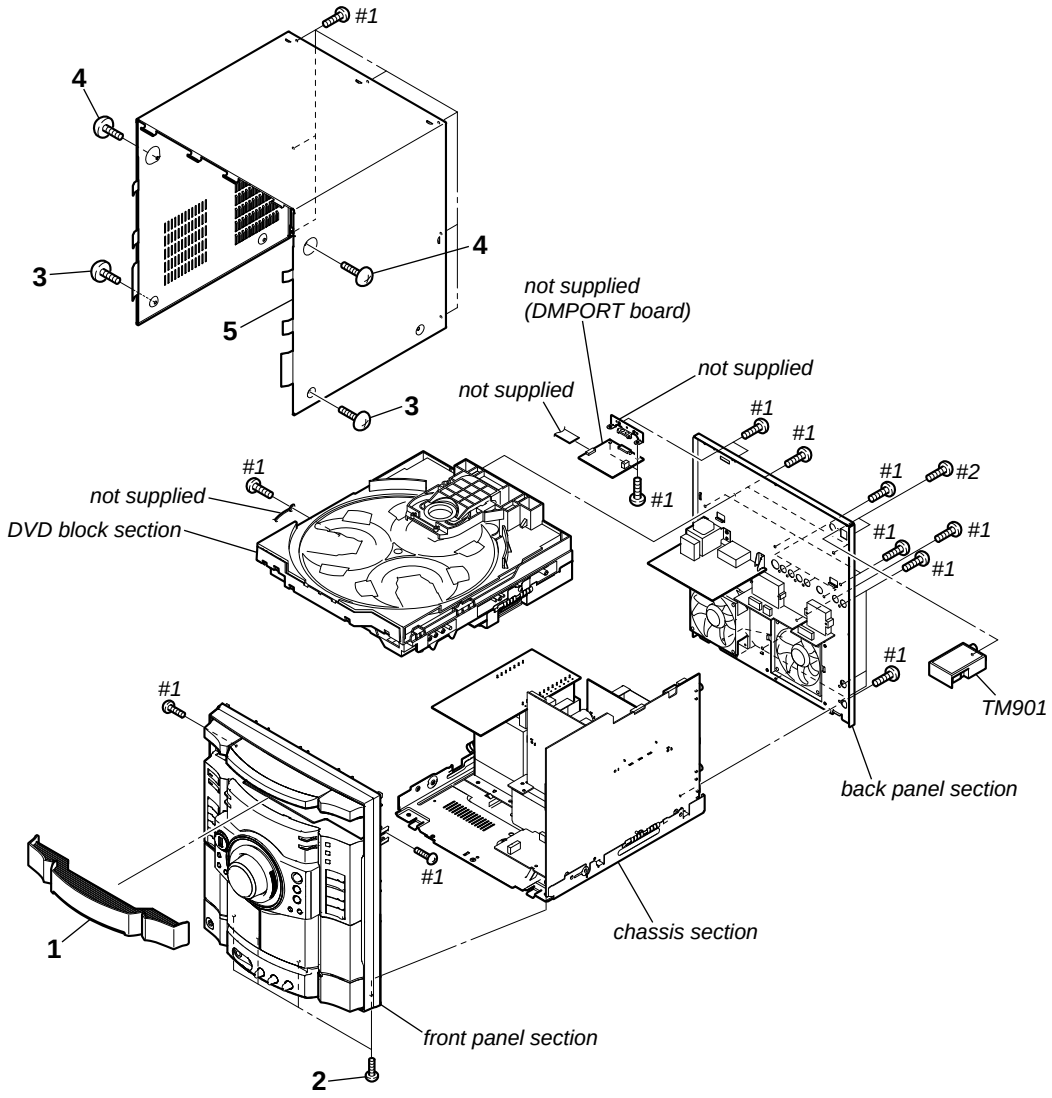
SECTION 8
EXPLODED VIEWS

Note:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Accessories are given in the last of this parts list.
- Abbreviation
  - E2 : 120V AC area in E model
  - E3 : 240V AC area in E model
  - E12 : 220 – 240V AC area in E model
  - E15 : Iran model
  - PH : Philippines model
  - SP : Singapore model
  - TH : Thai model
  - AUS : Australian model

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

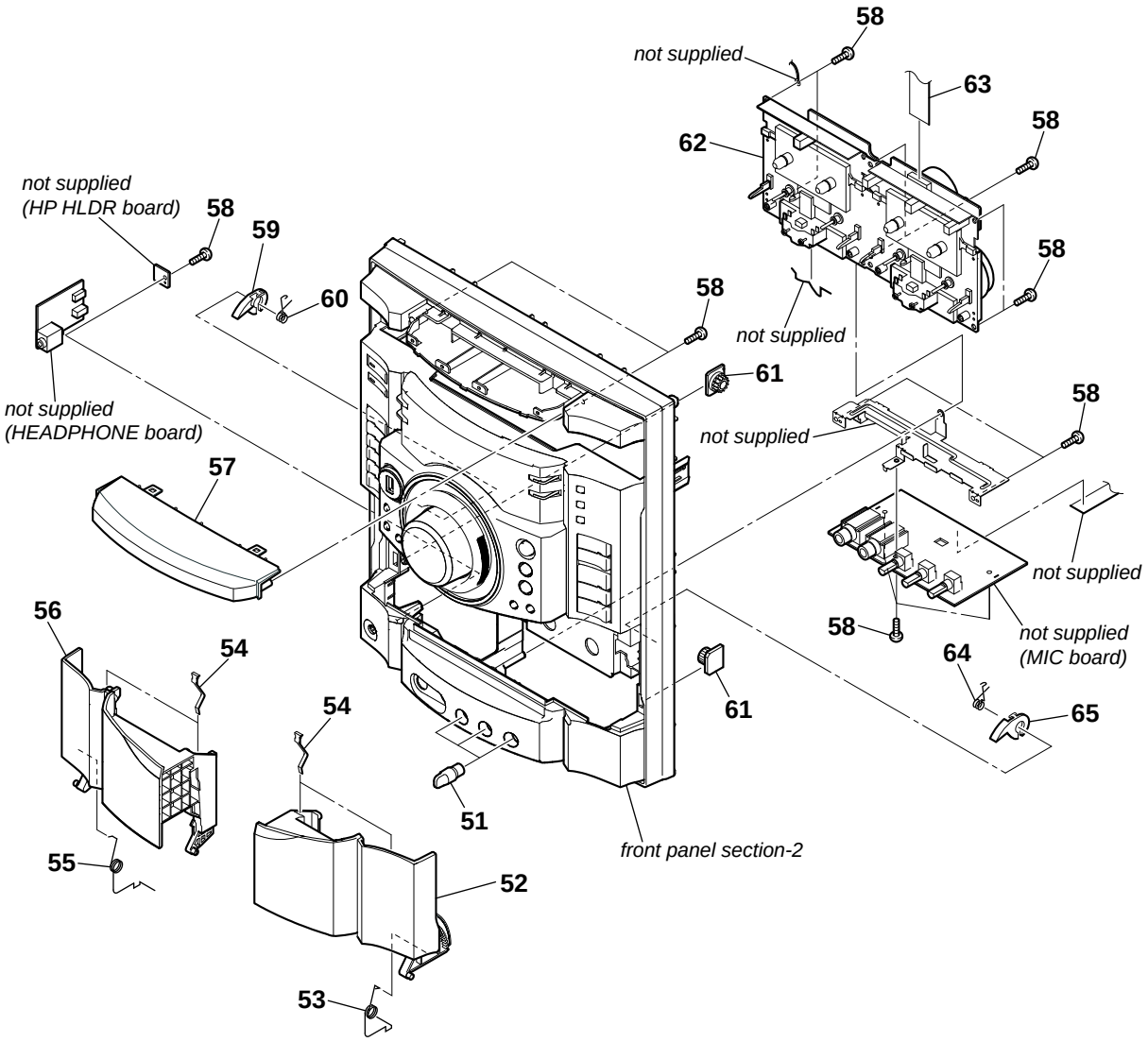
8-1. OVERALL SECTION



Ref. No.	Part No.	Description	Remark
1	3-285-873-01	PANEL, LOADING (GZR8D/GZR9D:EXCEPT AUS)	
1	3-285-873-11	PANEL, LOADING (GZR9D:AUS)	
1	3-285-873-21	PANEL, LOADING (GZR7D)	
2	3-077-331-21	+BV 3 (3-CR)	
3	3-363-099-02	SCREW (CASE 3 TP2)	
4	3-363-099-32	SCREW (CASE 3 TP2)	

Ref. No.	Part No.	Description	Remark
5	3-879-640-11	CASE (GZR7D)	
5	3-879-640-31	CASE (GZR8D/GZR9D)	
TM901	1-693-761-11	TUNER (FM/AM) (ANTENNA)	
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
#2	7-685-645-79	SCREW +BVTP 3X6 TYPE2 IT-3	

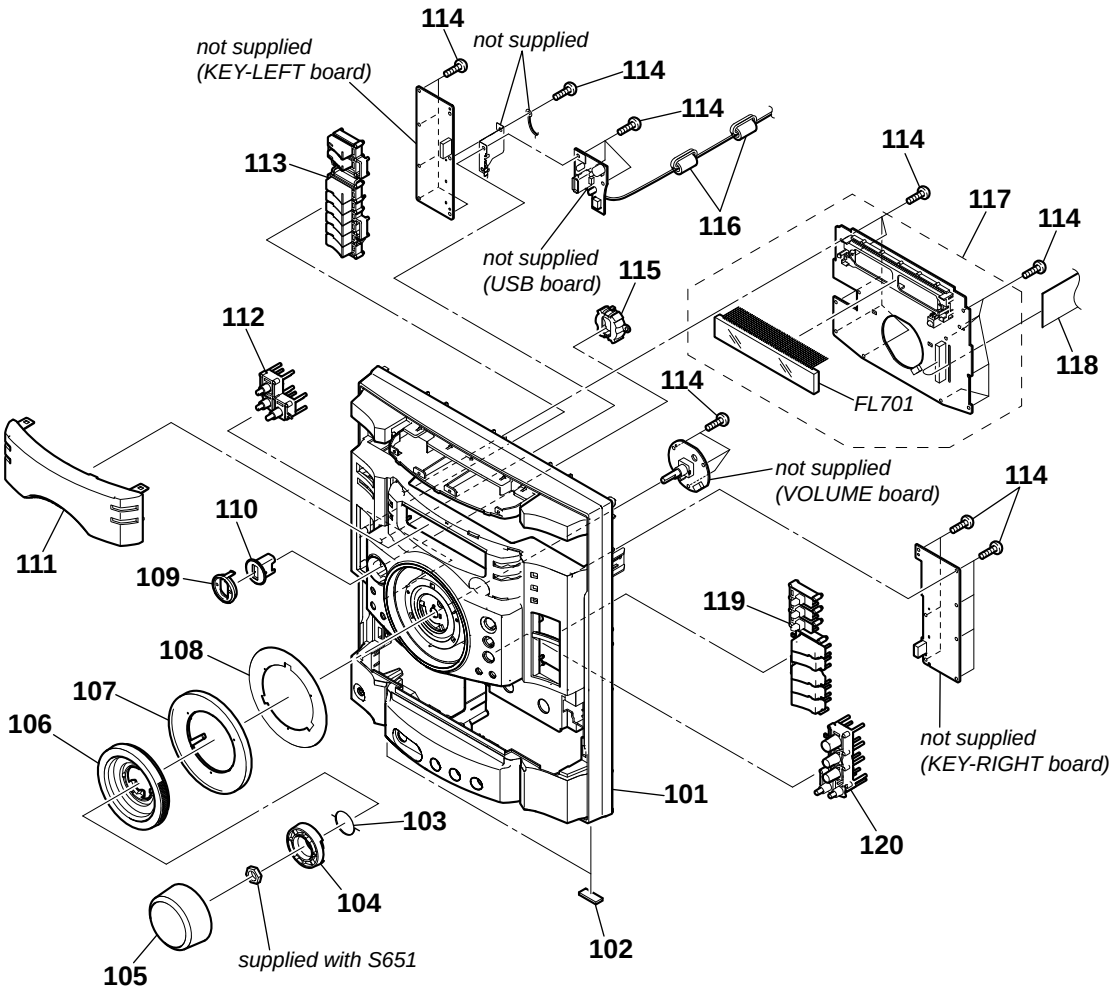
8-2. FRONT PANEL SECTION-1



Ref. No.	Part No.	Description	Remark
51	2-638-220-11	KNOB (MIC)	
52	3-285-826-01	LID (TC-R)	
53	3-285-872-01	SPRING (TC-R)	
54	2-669-613-01	SPRING, DETENT	
55	3-285-871-01	SPRING (TC-L)	
56	3-285-825-01	LID (TC-L)	
57	3-285-837-01	ORNAMENT (TOP) (GZR7D)	
57	3-285-837-11	ORNAMENT (TOP) (GZR8D)	
57	3-285-837-21	ORNAMENT (TOP) (GZR9D)	

Ref. No.	Part No.	Description	Remark
58	3-087-053-01	+BVTP 2.6 (3CR)	
59	4-231-824-01	CAM (A), HEART	
60	4-231-836-01	SPRING (HEART CAM-A)	
61	4-224-104-41	DAMPER	
62	1-417-657-13	MECHA DECK	
63	1-831-928-21	CABLE, FLEXIBLE FLAT (11 CORE)	
64	4-231-841-01	SPRING (HEART CAM-B)	
65	4-231-825-01	CAM (B), HEART	

8-3. FRONT PANEL SECTION-2

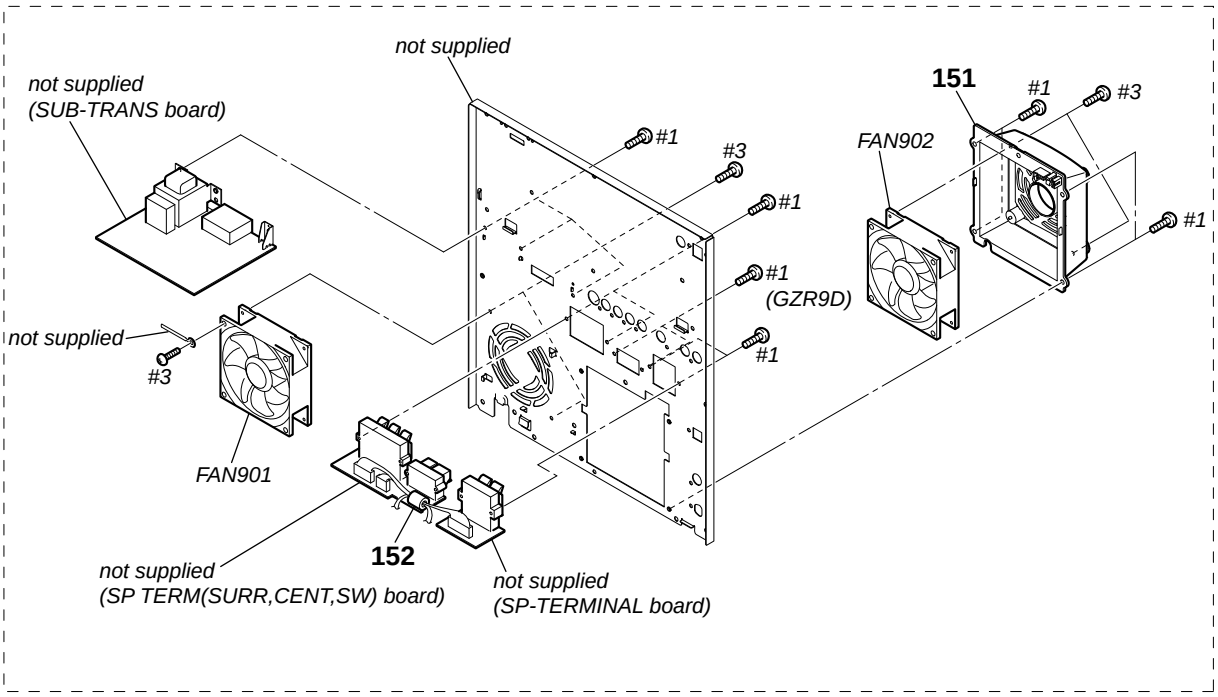


Ref. No.	Part No.	Description	Remark
101	X-2318-601-1	PANEL ASSY, FRONT (GZR7D/GZR8D)	
101	X-2318-602-1	PANEL (9D) ASSY, FRONT (GZR9D)	
102	4-225-252-01	CUSHION (FOOT)	
103	4-252-223-01	SPRING, KNOB	
104	3-285-839-01	HOLDER (JOG)	
105	3-285-874-01	KNOB (VOL)	
106	3-285-838-01	KNOB (JOG)	
107	3-285-834-01	REFLECTOR (LED)	
108	3-285-840-01	SHEET (LED)	
109	3-285-841-01	ORNAMENT (USB)	
110	3-285-842-01	INDICATOR (USB)	
111	3-285-833-01	WINDOW (DISPLAY)	

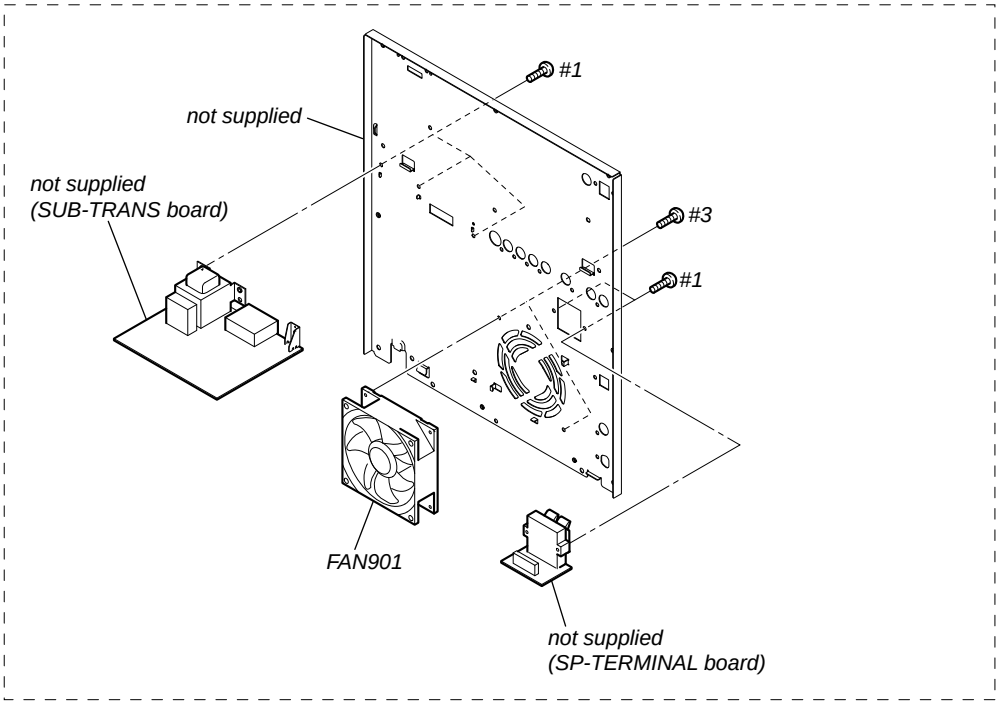
Ref. No.	Part No.	Description	Remark
112	3-285-836-01	BUTTON (EQ)	
113	X-2318-599-1	BUTTON (POWER) ASSY (GZR7D/GZR8D)	
113	X-2318-600-1	BUTTON (POWER 9D) ASSY (GZR9D)	
114	3-087-053-01	+BVTP 2.6 (3CR)	
115	3-700-512-01	BASE (USB)	
116	1-500-933-11	CORE, FERRITE	
117	A-1488-020-A	PANEL BOARD, COMPLETE (GZR9D)	
117	A-1493-105-A	PANEL BOARD, COMPLETE (GZR7D/GZR8D)	
118	1-832-916-21	CABLE, FLEXIBLE FLAT (29 CORE)	
119	3-285-828-01	BUTTON (DISC)	
120	3-285-835-01	BUTTON (PLAY)	
FL701	1-483-001-11	INDICATOR TUBE, FLUORESCENT	

8-4. BACK PANEL SECTION

HCD-GZR8D/GZR9D



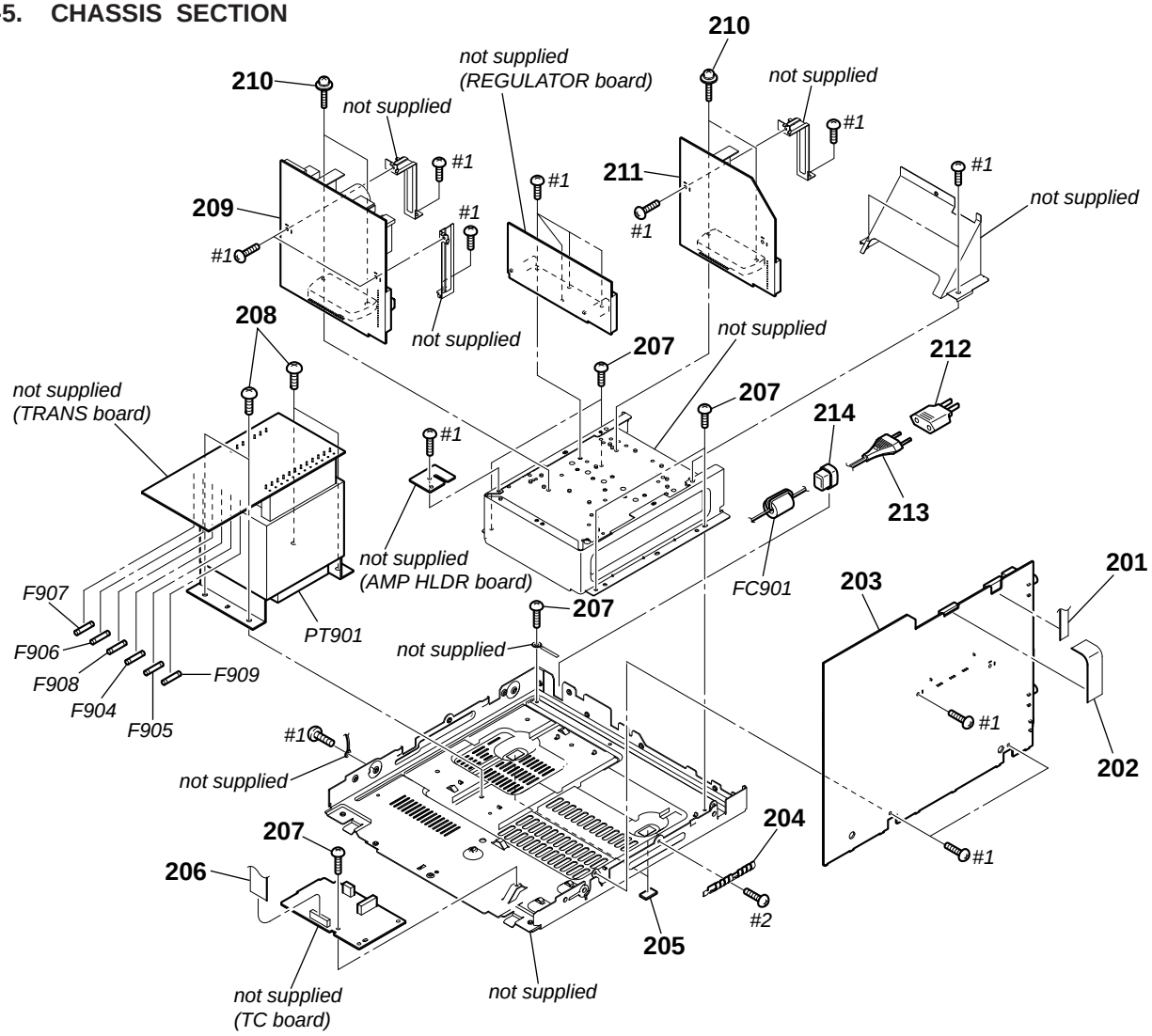
HCD-GZR7D



Ref. No.	Part No.	Description	Remark
151	3-285-881-01	COVER (FAN) (GZR8D/GZR9D)	
* 152	1-400-052-11	FILTER, CLAMP (FERRITE CORE) (AUS)	
FAN901	1-787-400-11	D.C. FAN (GZR7D)	
FAN901	1-787-400-31	FAN (DC) (GZR8D/GZR9D)	

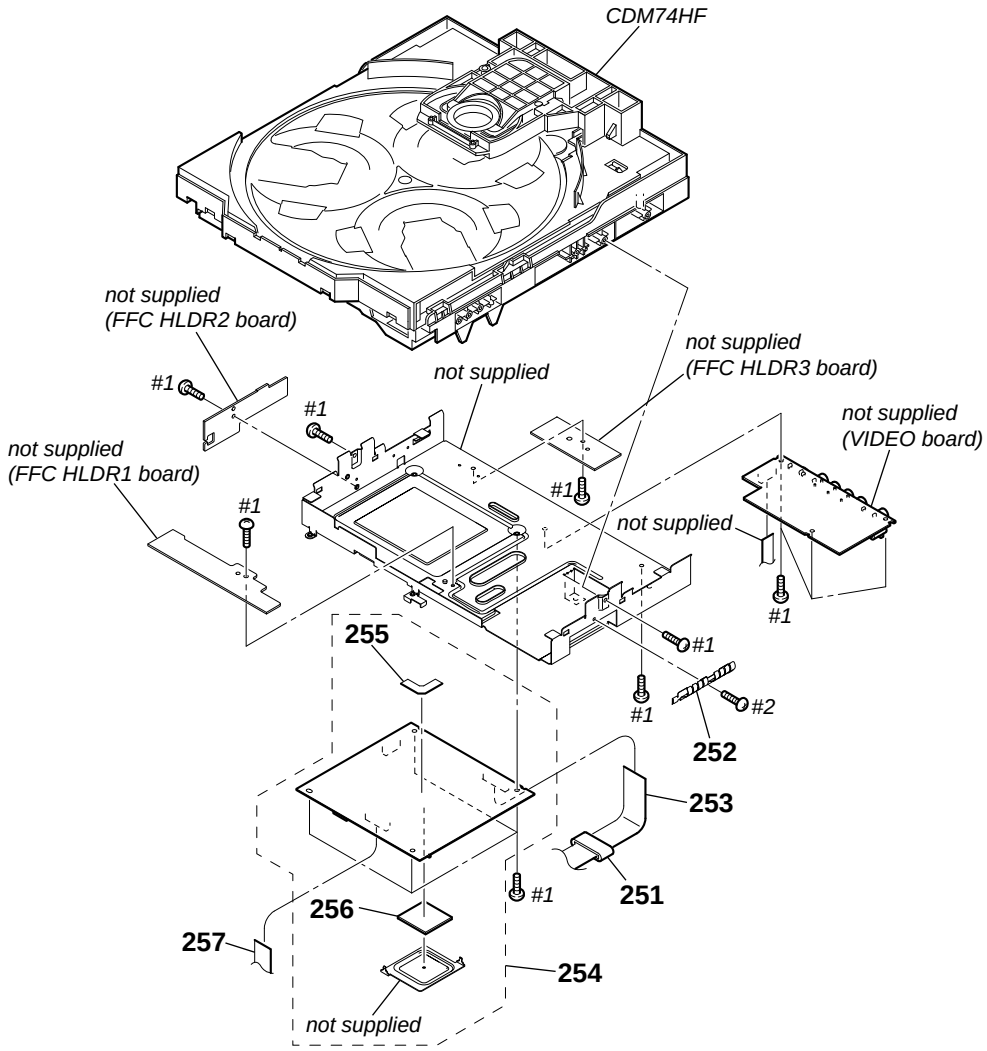
Ref. No.	Part No.	Description	Remark
FAN902	1-787-400-21	FAN (DC) (GZR8D/GZR9D)	
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
#3	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3	

8-5. CHASSIS SECTION



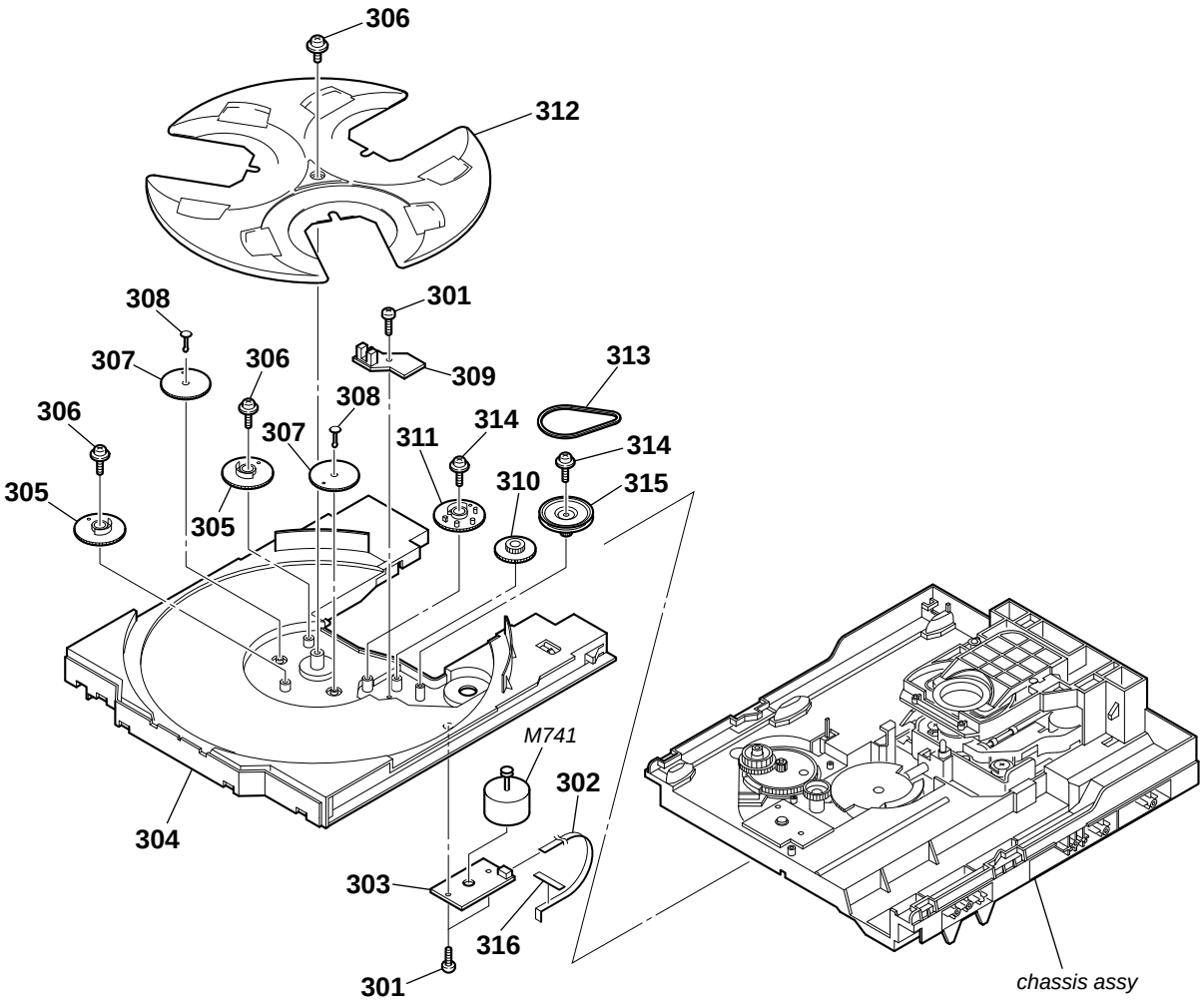
Ref. No.	Part No.	Description	Remark
201	1-832-053-21	CABLE, FLEXIBLE FLAT (9 CORE)	
202	1-831-786-21	CABLE, FLEXIBLE FLAT (13 CORE)	
203	A-1488-027-A	MAIN BOARD, COMPLETE (GZR9D:E3,E15)	
203	A-1489-658-A	MAIN BOARD, COMPLETE (GZR9D:PH,SP)	
203	A-1489-660-A	MAIN BOARD, COMPLETE (GZR9D:E2)	
203	A-1493-107-A	MAIN BOARD, COMPLETE (GZR8D:E3,E15)	
203	A-1493-113-A	MAIN BOARD, COMPLETE (GZR8D:E12)	
203	A-1493-118-A	MAIN BOARD, COMPLETE (GZR8D:PH,SP,TH)	
203	A-1493-879-A	MAIN BOARD, COMPLETE (GZR7D:E3,E15)	
203	A-1493-883-A	MAIN BOARD, COMPLETE (GZR7D:E12)	
203	A-1493-888-A	MAIN BOARD, COMPLETE (GZR7D:PH,SP,TH)	
203	A-1545-269-A	MAIN BOARD, COMPLETE (GZR9D:AUS)	
204	3-876-029-01	SPRING (EMC)	
205	4-225-252-01	CUSHION (FOOT)	
206	1-832-434-21	CABLE, FLEXIBLE FLAT (11 CORE)	
207	3-077-331-21	+BV 3 (3-CR)	
208	4-900-386-01	SCREW	
209	A-1488-031-A	AMP FR & SW BOARD, COMPLETE (GZR9D:EXCEPT E2)	
209	A-1493-110-A	AMP FR & SW BOARD, COMPLETE (GZR8D)	
209	A-1493-882-A	AMP FR & SW BOARD, COMPLETE (GZR9D:E2)	
209	A-1509-909-A	AMP FR & SW BOARD, COMPLETE (GZR7D)	
210	3-905-609-31	SCREW (TRANSISTOR)	
211	A-1488-059-A	SURR & CENT AMP BOARD, COMPLETE (GZR9D)	
211	A-1550-916-A	SURR & CENT AMP BOARD, COMPLETE (GZR8D)	
⚠ 212	1-569-008-22	ADAPTOR, CONVERSION 2P (E2,E3,E15,PH,SP)	
⚠ 213	1-834-288-21	POWER-SUPPLY CORD (TH)	
⚠ 213	1-834-966-11	CORD, POWER (EXCEPT TH,AUS)	
⚠ 213	1-834-967-11	CORD, POWER (AUS)	
214	3-703-244-00	BUSHING (2104), CORD (EXCEPT TH)	
214	4-916-783-01	BUSHING, CORD (TH)	
⚠ F904	1-532-506-33	FUSE (T6.3AL/250V) (GZR7D)	
⚠ F904	1-533-949-33	FUSE, CYLINDRICAL (TIME LAG) (T8AL/250V) (GZR8D)	
⚠ F904	1-576-332-33	FUSE, CYLINDRICAL (TIME LAG) (T10AL/250V) (GZR9D)	
⚠ F905	1-532-506-33	FUSE (T6.3AL/250V) (GZR7D)	
⚠ F905	1-533-949-33	FUSE, CYLINDRICAL (TIME LAG) (T8AL/250V) (GZR8D)	
⚠ F905	1-576-332-33	FUSE, CYLINDRICAL (TIME LAG) (T10AL/250V) (GZR9D)	
⚠ F906	1-532-505-33	FUSE (T5AL/250V)	
⚠ F907	1-532-465-33	FUSE (T3.15AL/250V)	
⚠ F908	1-533-949-33	FUSE, CYLINDRICAL (TIME LAG) (T8AL/250V) (GZR7D/GZR8D)	
⚠ F908	1-576-332-33	FUSE, CYLINDRICAL (TIME LAG) (T10AL/250V) (GZR9D)	
⚠ F909	1-533-949-33	FUSE, CYLINDRICAL (TIME LAG) (T8AL/250V) (GZR7D/GZR8D)	
⚠ F909	1-576-332-33	FUSE, CYLINDRICAL (TIME LAG) (T10AL/250V) (GZR9D)	
FC901	1-481-419-11	CORE, FERRITE	
⚠ PT901	1-445-398-11	TRANSFORMER, POWER (MAIN) (GZR9D)	
⚠ PT901	1-445-400-11	TRANSFORMER, POWER (MAIN) (GZR7D)	
⚠ PT901	1-445-405-11	TRANSFORMER, POWER (MAIN) (GZR8D)	
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
#2	7-685-645-79	SCREW +BVTP 3X6 TYPE2 IT-3	

8-6. DVD BLOCK SECTION



Ref. No.	Part No.	Description	Remark
251	1-481-362-11	CORE, FERRITE	
252	3-876-029-01	SPRING (EMC)	
253	1-832-620-21	CABLE, FLEXIBLE FLAT (21 CORE)	(GZR8D/GZR9D)
253	1-832-630-21	CABLE, FLEXIBLE FLAT (23 CORE)	(GZR7D)
254	A-1486-620-A	DMB18 BOARD, COMPLETE (for SERVICE)	(GZR7D:E3,E15)
254	A-1486-622-A	DMB18 BOARD, COMPLETE (for SERVICE)	(GZR7D:E12)
254	A-1486-623-A	DMB18 BOARD, COMPLETE (for SERVICE)	(GZR7D:PH,SP,TH)
254	A-1486-624-A	DMB18 BOARD, COMPLETE (for SERVICE)	(GZR8D:E3,E15)
254	A-1486-626-A	DMB18 BOARD, COMPLETE (for SERVICE)	(GZR8D:E12)
254	A-1486-627-A	DMB18 BOARD, COMPLETE (for SERVICE)	(GZR8D:PH,SP,TH)
254	A-1486-628-A	DMB18 BOARD, COMPLETE (for SERVICE)	(GZR9D:E3,E15)
254	A-1486-631-A	DMB18 BOARD, COMPLETE (for SERVICE)	(GZR9D:E2)
254	A-1486-632-A	DMB18 BOARD, COMPLETE (for SERVICE)	(GZR9D:PH,SP)
254	A-1546-305-A	DMB18 BOARD, COMPLETE (for SERVICE)	(GZR9D:AUS)
255	4-106-844-01	SHEET (DMB), COPPER LEAF	
256	4-231-099-41	SHEET, RADIATION	
257	1-832-589-21	CABLE, FLEXIBLE FLAT (15 CORE)	
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	

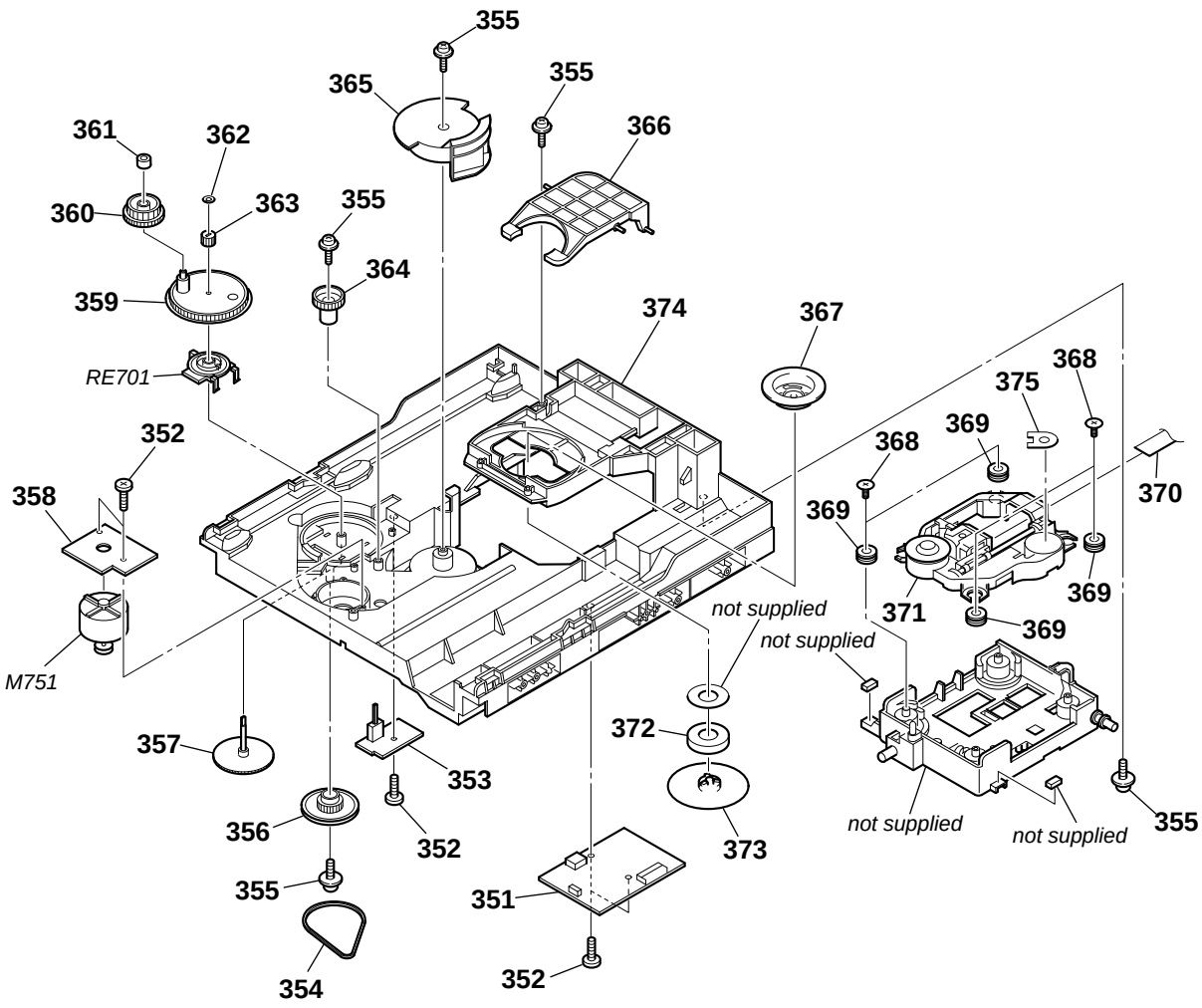
8-7. DVD MECHANISM DECK SECTION-1



Ref. No.	Part No.	Description	Remark
301	4-218-253-62	SCREW (M2.6), +BTTP	
302	1-776-182-11	WIRE (FLAT TYPE) (5 CORE)	
303	1-687-134-12	MOTOR (TB) BOARD	
304	4-243-815-11	TABLE (LOADING)	
305	4-245-571-02	GEAR (STOPPER)	
306	4-218-252-61	SCREW (+PTPWH M2.6), FLOATING	
307	4-245-570-01	GEAR (JOINT)	
308	4-245-572-01	BUSHING (GEAR)	
309	1-687-132-12	SENSOR BOARD	

Ref. No.	Part No.	Description	Remark
310	4-243-820-01	GEAR (TABLE)	
311	4-243-819-01	GEAR (GENEVA)	
312	4-243-816-21	TRAY	
313	4-243-823-01	BELT (TABLE)	
314	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING	
315	4-243-821-01	PULLEY (TABLE)	
316	3-231-598-01	SHEET (BA)	
M741	A-1108-965-A	MOTOR ASSY, TABLE (TABLE)	

8-8. DVD MECHANISM DECK SECTION-2



Ref. No.	Part No.	Description	Remark
351	A-1103-756-B	DRIVER BOARD, COMPLETE	
352	4-218-253-52	SCREW (M2.6), +BTTP	
353	1-687-669-12	SW BOARD	
354	4-244-034-01	BELT (LOADING)	
355	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING	
356	4-225-844-01	GEAR (LOADING A)	
357	4-224-613-11	GEAR (SHAFT)	
358	1-687-133-12	MOTOR (LD) BOARD	
359	4-244-108-01	GEAR, SWING	
360	4-224-609-01	GEAR (LOADING C)	
361	4-224-608-01	COLLAR, SWING	
362	3-016-533-11	WASHER (FR), STOPPER	
363	4-224-611-01	GEAR (LOADING B)	
364	4-224-606-01	GEAR (RV)	

Ref. No.	Part No.	Description	Remark
365	4-243-818-01	GEAR (U/D)	
366	2-541-918-01	LEVER (LIFTER (H))	
367	2-345-983-01	PULLEY B (310), CHUCKING	
368	3-087-599-01	SCREW, INSULATOR	
369	2-634-618-01	INSULATOR	
370	1-828-252-51	CABLE, FLEXIBLE FLAT (24 CORE)	
⚠ 371	8-820-322-04	OPTICAL PICK-UP (KHM-313CAB/C2RP)	
372	4-251-923-01	YOKE (310)	
373	2-345-982-01	PULLEY A (310), CHUCKING	
374	4-243-817-22	CHASSIS	
375	3-113-851-01	SHEET	
M751	A-1108-966-A	MOTOR ASSY, LOADING (LOADING)	
RE701	1-477-680-12	ENCODER, ROTARY (DISC TRAY ADDRESS DETECT)	

SECTION 9
ELECTRICAL PARTS LIST

AMP FR & SW

Note:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: μ, for example:
  uA. . : μA. . , uPA. . , μPA. . ,
  uPB. . : μPB. . , uPC. . , μPC. . ,
  uPD. . : μPD. .
- CAPACITORS
  uF: μF
- COILS
  uH: μH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- Abbreviation
  E2 : 120V AC area in E model
  E3 : 240V AC area in E model
  E12 : 220 – 240V AC area in E model
  E15 : Iran model
  PH : Philippines model
  SP : Singapore model
  TH : Thai model
  AUS : Australian model

Ref. No.	Part No.	Description			Remark
	A-1488-031-A	AMP FR & SW BOARD, COMPLETE			(GZR9D:EXCEPT E2)
	A-1493-110-A	AMP FR & SW BOARD, COMPLETE (GZR8D)			
	A-1493-882-A	AMP FR & SW BOARD, COMPLETE (GZR9D:E2)			
	A-1509-909-A	AMP FR & SW BOARD, COMPLETE (GZR7D)			
		**********			
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3			
		< CAPACITOR >			
C403	1-137-749-11	MYLAR	0.1uF		100V
C404	1-137-749-11	MYLAR	0.1uF		100V
C409	1-127-811-11	ELECT(BLOCK)	3300uF	20%	50V (GZR9D:E2)
C409	1-135-515-21	ELECT	3300uF	20%	50V (GZR9D:EXCEPT E2)
C409	1-135-832-21	ELECT	2200uF	20%	50V (GZR7D/GZR8D)
C410	1-127-811-11	ELECT(BLOCK)	3300uF	20%	50V (GZR9D:E2)
C410	1-135-515-21	ELECT	3300uF	20%	50V (GZR9D:EXCEPT E2)
C410	1-135-832-21	ELECT	2200uF	20%	50V (GZR7D/GZR8D)
C411	1-137-841-11	ELECT(BLOCK)	2200uF	20%	71V (GZR9D:E2)
C411	1-137-847-21	ELECT	2200uF	20%	71V (EXCEPT GZR9D:E2)
C412	1-137-841-11	ELECT(BLOCK)	2200uF	20%	71V (GZR9D:E2)
C412	1-137-847-21	ELECT	2200uF	20%	71V (EXCEPT GZR9D:E2)
C413	1-136-497-81	FILM	0.1uF	5%	50V
C414	1-136-497-81	FILM	0.1uF	5%	50V
C431	1-126-964-11	ELECT	10uF	20%	50V (GZR9D)
C432	1-164-315-11	CERAMIC CHIP	470PF	5%	50V (GZR9D)
C433	1-126-967-11	ELECT	47uF	20%	50V (GZR9D)
C435	1-162-927-11	CERAMIC CHIP	100PF	5%	50V (GZR9D)
C441	1-126-964-11	ELECT	10uF	20%	50V
C442	1-126-964-11	ELECT	10uF	20%	50V
C443	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C444	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C445	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C446	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C447	1-126-967-11	ELECT	47uF	20%	50V
C448	1-126-967-11	ELECT	47uF	20%	50V
C451	1-136-497-81	FILM	0.1uF	5%	50V
C452	1-136-497-81	FILM	0.1uF	5%	50V
C453	1-136-497-81	FILM	0.1uF	5%	50V (GZR9D)
C454	1-136-497-81	FILM	0.1uF	5%	50V
C455	1-136-497-81	FILM	0.1uF	5%	50V
C456	1-136-497-81	FILM	0.1uF	5%	50V (GZR9D)
C461	1-128-562-11	ELECT	47uF	20%	100V
C462	1-128-562-11	ELECT	47uF	20%	100V
C463	1-126-965-11	ELECT	22uF	20%	50V
C481	1-104-658-11	ELECT	100uF	20%	10V
C486	1-126-960-11	ELECT	1uF	20%	50V
C487	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
		< CONNECTOR >			
* CN442	1-774-629-11	CONNECTOR, BOARD TO BOARD 17P			(GZR8D/GZR9D)
* CN443	1-766-175-11	PIN, CONNECTOR (PC BOARD) 5P			
* CN444	1-564-510-11	PLUG, CONNECTOR 7P (GZR8D/GZR9D)			
CN450	1-778-982-21	CONNECTOR, BOARD TO BOARD 13P (GZR7D)			
		< DIODE >			
D401	6-500-249-01	DIODE D15XB20 (GZR9D)			
D402	6-500-360-01	DIODE D10XB20			
D403	6-500-360-01	DIODE D10XB20 (GZR7D/GZR8D)			
D441	6-500-334-01	DIODE MC2836-T112-1			
D442	6-501-817-01	DIODE MA2J1110GLS0 (GZR9D)			
D443	6-501-817-01	DIODE MA2J1110GLS0 (GZR9D)			
D445	8-719-923-92	DIODE MTZJ-T-77-16B			
D446	8-719-923-92	DIODE MTZJ-T-77-16B			
D481	6-501-817-01	DIODE MA2J1110GLS0			
D483	6-501-817-01	DIODE MA2J1110GLS0			
D484	6-501-817-01	DIODE MA2J1110GLS0			
D487	8-719-080-57	DIODE FSF05A20 (GZR9D)			
D488	8-719-080-57	DIODE FSF05A20 (GZR9D)			
D489	6-501-754-01	DIODE MAZ8091G0LS0			
D491	6-500-968-21	DIODE 30PRA20FC (GZR7D/GZR8D)			
D492	6-500-968-21	DIODE 30PRA20FC (GZR7D/GZR8D)			
		< IC >			
IC401	6-600-674-01	IC STK416-130-E (GZR9D)			
IC402	6-600-582-01	IC STK415-130-E (GZR7D/GZR8D)			

AMP FR & SW

Ref. No.	Part No.	Description				Remark
		< TRANSISTOR >				
Q441	6-551-268-01	TRANSISTOR	2SC5625			
Q442	6-551-268-01	TRANSISTOR	2SC5625			
Q443	6-551-268-01	TRANSISTOR	2SC5625 (GZR9D)			
Q480	8-729-036-89	TRANSISTOR	KTC3198GR-AT (GZR8D/GZR9D)			
Q481	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF			
Q482	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF			
Q483	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF			
Q484	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF			
Q485	6-551-696-01	TRANSISTOR	ISA1235AC1TP-1EF			
Q486	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF			
Q487	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF			
Q488	8-729-036-89	TRANSISTOR	KTC3198GR-AT			
Q489	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF			
Q490	6-551-696-01	TRANSISTOR	ISA1235AC1TP-1EF (GZR9D)			
		< RESISTOR >				
R401	1-216-845-11	METAL CHIP	100K	5%	1/10W	
R402	1-216-837-11	METAL CHIP	22K	5%	1/10W	
R403	1-216-841-11	METAL CHIP	47K	5%	1/10W	
R404	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R405	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R406	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R407	1-216-837-11	METAL CHIP	22K	5%	1/10W	
R408	1-216-839-11	METAL CHIP	33K	5%	1/10W	
R409	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R410	1-216-845-11	METAL CHIP	100K	5%	1/10W	
R411	1-216-837-11	METAL CHIP	22K	5%	1/10W	
⚠ R412	1-220-893-11	METAL	0.22	10%	5W	F
R413	1-216-842-11	METAL CHIP	56K	5%	1/10W	
R414	1-216-842-11	METAL CHIP	56K	5%	1/10W	
R415	1-216-837-11	METAL CHIP	22K	5%	1/10W	
R416	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R417	1-216-845-11	METAL CHIP	100K	5%	1/10W	
R418	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R419	1-216-839-11	METAL CHIP	33K	5%	1/10W	
⚠ R420	1-220-893-11	METAL	0.22	10%	5W	F
R421	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
R422	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	(GZR7D)
R422	1-216-864-11	SHORT CHIP	0 (GZR8D/GZR9D)			
R423	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	
R424	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	(GZR8D/GZR9D)
⚠ R425	1-220-893-11	METAL	0.22	10%	5W	F (GZR9D)
R426	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	
R427	1-216-842-11	METAL CHIP	56K	5%	1/10W	
R428	1-216-814-11	METAL CHIP	270	5%	1/10W	(GZR7D)
R428	1-216-817-11	METAL CHIP	470	5%	1/10W	(GZR8D/GZR9D)
R429	1-216-842-11	METAL CHIP	56K	5%	1/10W	
R430	1-216-814-11	METAL CHIP	270	5%	1/10W	(GZR7D)
R430	1-216-817-11	METAL CHIP	470	5%	1/10W	(GZR8D/GZR9D)
R431	1-216-842-11	METAL CHIP	56K	5%	1/10W	(GZR9D)
R432	1-216-816-11	METAL CHIP	390	5%	1/10W	(GZR9D)
R433	1-216-845-11	METAL CHIP	100K	5%	1/10W	(GZR9D)
R434	1-216-842-11	METAL CHIP	56K	5%	1/10W	(GZR9D)
R435	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	
R436	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	
R437	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	(GZR9D)
R438	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	(GZR8D/GZR9D)
R438	1-216-833-11	METAL CHIP	10K	5%	1/10W	(GZR7D)
R439	1-216-821-11	METAL CHIP	1K	5%	1/10W	(GZR9D)
R440	1-216-837-11	METAL CHIP	22K	5%	1/10W	(GZR9D)
R441	1-216-839-11	METAL CHIP	33K	5%	1/10W	(GZR9D)
R445	1-216-815-11	METAL CHIP	330	5%	1/10W	
R446	1-216-845-11	METAL CHIP	100K	5%	1/10W	
R447	1-216-836-11	METAL CHIP	18K	5%	1/10W	
R448	1-216-841-11	METAL CHIP	47K	5%	1/10W	
R449	1-216-841-11	METAL CHIP	47K	5%	1/10W	
R450	1-216-797-11	METAL CHIP	10	5%	1/10W	
R451	1-216-797-11	METAL CHIP	10	5%	1/10W	
R452	1-216-797-11	METAL CHIP	10	5%	1/10W	
R453	1-216-797-11	METAL CHIP	10	5%	1/10W	
R454	1-216-797-11	METAL CHIP	10	5%	1/10W	
R455	1-216-797-11	METAL CHIP	10	5%	1/10W	
R456	1-216-797-11	METAL CHIP	10	5%	1/10W	
R457	1-216-797-11	METAL CHIP	10	5%	1/10W	
R458	1-216-797-11	METAL CHIP	10	5%	1/10W	(GZR9D)
R459	1-216-797-11	METAL CHIP	10	5%	1/10W	(GZR9D)
R460	1-216-797-11	METAL CHIP	10	5%	1/10W	(GZR9D)
R461	1-216-797-11	METAL CHIP	10	5%	1/10W	(GZR9D)
R462	1-216-833-11	METAL CHIP	10K	5%	1/10W	(GZR9D)
R463	1-216-833-11	METAL CHIP	10K	5%	1/10W	(GZR9D)
R464	1-216-809-11	METAL CHIP	100	5%	1/10W	(GZR9D)
R465	1-216-810-11	METAL CHIP	120	5%	1/10W	(GZR9D)
R466	1-216-809-11	METAL CHIP	100	5%	1/10W	(GZR9D)
⚠ R467	1-215-871-11	METAL OXIDE	2.2K	5%	1W	F
⚠ R468	1-215-871-11	METAL OXIDE	2.2K	5%	1W	F
R469	1-216-810-11	METAL CHIP	120	5%	1/10W	(GZR9D)
R470	1-216-810-11	METAL CHIP	120	5%	1/10W	(GZR8D/GZR9D)
R470	1-216-812-11	METAL CHIP	180	5%	1/10W	(GZR7D)
R471	1-216-809-11	METAL CHIP	100	5%	1/10W	(GZR8D/GZR9D)
R471	1-216-812-11	METAL CHIP	180	5%	1/10W	(GZR7D)
R472	1-216-810-11	METAL CHIP	120	5%	1/10W	(GZR8D/GZR9D)

Ref. No.	Part No.	Description				Remark
R472	1-216-812-11	METAL CHIP	180	5%	1/10W	
						(GZR7D)
R473	1-216-809-11	METAL CHIP	100	5%	1/10W	
						(GZR8D/GZR9D)
R473	1-216-812-11	METAL CHIP	180	5%	1/10W	
						(GZR7D)
R474	1-216-841-11	METAL CHIP	47K	5%	1/10W	
						(GZR9D)
R475	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	
R476	1-216-845-11	METAL CHIP	100K	5%	1/10W	
R477	1-216-845-11	METAL CHIP	100K	5%	1/10W	
⚠ R490	1-246-163-61	FUSIBLE	100	5%	1/4W	F
R491	1-216-837-11	METAL CHIP	22K	5%	1/10W	
R492	1-216-837-11	METAL CHIP	22K	5%	1/10W	
R493	1-216-837-11	METAL CHIP	22K	5%	1/10W	
R494	1-216-837-11	METAL CHIP	22K	5%	1/10W	
⚠ R495	1-246-155-61	FUSIBLE	1	5%	1/4W	F
⚠ R496	1-246-163-61	FUSIBLE	100	5%	1/4W	F
R497	1-216-842-11	METAL CHIP	56K	5%	1/10W	
R499	1-216-841-11	METAL CHIP	47K	5%	1/10W	
		< RELAY >				
RY441	1-755-308-21	RELAY				
RY442	1-755-308-21	RELAY (GZR9D)				
		< THERMISTOR >				
TH441	1-807-796-11	THERMISTOR				
**********						
	A-1486-620-A	DMB18 BOARD, COMPLETE (for SERVICE)				
						(GZR7D:E3,E15)
	A-1486-622-A	DMB18 BOARD, COMPLETE (for SERVICE)				
						(GZR7D:E12)
	A-1486-623-A	DMB18 BOARD, COMPLETE (for SERVICE)				
						(GZR7D:PH,SP,TH)
	A-1486-624-A	DMB18 BOARD, COMPLETE (for SERVICE)				
						(GZR8D:E3,E15)
	A-1486-626-A	DMB18 BOARD, COMPLETE (for SERVICE)				
						(GZR8D:E12)
	A-1486-627-A	DMB18 BOARD, COMPLETE (for SERVICE)				
						(GZR8D:PH,SP,TH)
	A-1486-628-A	DMB18 BOARD, COMPLETE (for SERVICE)				
						(GZR9D:E3,E15)
	A-1486-631-A	DMB18 BOARD, COMPLETE (for SERVICE)				
						(GZR9D:E2)
	A-1486-632-A	DMB18 BOARD, COMPLETE (for SERVICE)				
						(GZR9D:PH,SP)
	A-1546-305-A	DMB18 BOARD, COMPLETE (for SERVICE)				
						(GZR9D:AUS)
		**********				
	4-106-844-01	SHEET (DMB), COPPER LEAF				
	4-231-099-41	SHEET, RADIATION				
		< CAPACITOR >				
C101	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C102	1-165-908-11	CERAMIC CHIP	1uF	10%	10V	
C105	1-126-947-11	ELECT	47uF	20%	35V	
C106	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C108	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C111	1-104-658-11	ELECT	100uF	20%	10V	
C112	1-126-947-11	ELECT	47uF	20%	35V	
C113	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C114	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	

Ref. No.	Part No.	Description			Remark
C115	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C116	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C117	1-124-589-11	ELECT	47uF	20%	16V
C118	1-124-589-11	ELECT	47uF	20%	16V
C119	1-124-589-11	ELECT	47uF	20%	16V
C120	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C121	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C122	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C123	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C124	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C125	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C126	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C127	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C129	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C130	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C132	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C133	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C135	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C136	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C137	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C138	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C139	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C140	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C144	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C145	1-126-964-11	ELECT	10uF	20%	50V
C146	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C147	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C148	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C149	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C151	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C152	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C153	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C154	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C155	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C156	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C158	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C159	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C160	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C161	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C162	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C163	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C164	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C165	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C167	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C168	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C169	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C170	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C171	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C172	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C174	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C175	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C176	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C177	1-126-947-11	ELECT	47uF	20%	35V
C179	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C180	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C181	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C182	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C183	1-128-934-11	CERAMIC CHIP	0.33uF	20%	10V
C184	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C186	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V

DMB18

Ref. No.	Part No.	Description			Remark
C187	1-126-947-11	ELECT	47uF	20%	35V
C190	1-124-589-11	ELECT	47uF	20%	16V
C191	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C192	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C193	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C195	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C197	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C198	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C199	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C203	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C205	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C206	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C208	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C209	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C210	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C211	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C212	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C213	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C214	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C215	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C217	1-126-947-11	ELECT	47uF	20%	35V
C218	1-126-964-11	ELECT	10uF	20%	50V
C219	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C220	1-126-964-11	ELECT	10uF	20%	50V
C221	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C222	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C224	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C233	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C402	1-124-589-11	ELECT	47uF	20%	16V
C403	1-124-589-11	ELECT	47uF	20%	16V
C501	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C502	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C503	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C505	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C506	1-104-658-11	ELECT	100uF	20%	10V
C507	1-104-658-11	ELECT	100uF	20%	10V
C508	1-126-964-11	ELECT	10uF	20%	50V
C1100	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1108	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C1109	1-104-658-11	ELECT	100uF	20%	10V
C1110	1-104-658-11	ELECT	100uF	20%	10V
C1114	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1115	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C1116	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1117	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C1118	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1119	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C1130	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1161	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C1502	1-164-172-11	CERAMIC CHIP	0.0056uF	10%	25V
C1503	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C3602	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3603	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C3605	1-126-947-11	ELECT	47uF	20%	35V
C3606	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3607	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3608	1-126-964-11	ELECT	10uF	20%	50V
C3609	1-126-964-11	ELECT	10uF	20%	50V
C3611	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C3621	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V

Ref. No.	Part No.	Description			Remark
C3719	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C3729	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C3739	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V (GZR8D/GZR9D)
C3749	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V (GZR8D/GZR9D)
C3759	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V (GZR8D/GZR9D)
C3769	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V (GZR8D/GZR9D)
C3779	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C3789	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
		< CONNECTOR >			
CN101	1-815-763-32	CONNECTOR, FFC/FPC 24P			
* CN105	1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P			
CN110	1-779-283-11	CONNECTOR, FFC (LIF(NON-ZIF)) 15P			
CN111	1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P			
* CN201	1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P			
CN302	1-779-291-11	CONNECTOR, FFC (LIF(NON-ZIF)) 23P (GZR7D)			
CN303	1-779-552-21	CONNECTOR, FFC (LIF(NON-ZIF)) 15P			
CN304	1-779-289-11	CONNECTOR, FFC (LIF(NON-ZIF)) 21P (GZR8D/GZR9D)			
CN401	1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P			
		< DIODE >			
D1101	8-719-083-57	DIODE UDZSNPTE-173.6B			
D1102	8-719-083-57	DIODE UDZSNPTE-173.6B			
D3501	6-501-817-01	DIODE MA2J1110GLS0			
D3502	6-501-817-01	DIODE MA2J1110GLS0			
D3601	6-501-817-01	DIODE MA2J1110GLS0			
D3602	6-501-817-01	DIODE MA2J1110GLS0			
D3603	6-501-713-01	DIODE MAZ8033G0LS0			
		< GROUND TERMINAL BOARD >			
ET001	1-537-771-21	TERMINAL BOARD, GROUND			
ET002	1-537-771-21	TERMINAL BOARD, GROUND			
ET003	1-537-771-21	TERMINAL BOARD, GROUND			
		< FERRITE BEAD >			
FB106	1-469-324-21	FERRITE, EMI (SMD) (2012)			
FB107	1-469-324-21	FERRITE, EMI (SMD) (2012)			
FB108	1-469-324-21	FERRITE, EMI (SMD) (2012)			
FB109	1-469-324-21	FERRITE, EMI (SMD) (2012)			
FB111	1-469-670-21	FERRITE, EMI (SMD) (2012)			
FB112	1-469-670-21	FERRITE, EMI (SMD) (2012)			
FB115	1-469-670-21	FERRITE, EMI (SMD) (2012)			
FB116	1-469-670-21	FERRITE, EMI (SMD) (2012)			
FB117	1-469-670-21	FERRITE, EMI (SMD) (2012)			
FB118	1-469-670-21	FERRITE, EMI (SMD) (2012)			
FB119	1-469-670-21	FERRITE, EMI (SMD) (2012)			
FB401	1-469-324-21	FERRITE, EMI (SMD) (2012)			
FB402	1-469-324-21	FERRITE, EMI (SMD) (2012)			
FB403	1-469-324-21	FERRITE, EMI (SMD) (2012)			
FB404	1-469-324-21	FERRITE, EMI (SMD) (2012)			
FB405	1-469-324-21	FERRITE, EMI (SMD) (2012)			
FB406	1-469-324-21	FERRITE, EMI (SMD) (2012)			
FB1101	1-469-324-21	FERRITE, EMI (SMD) (2012)			
FB1103	1-469-324-21	FERRITE, EMI (SMD) (2012)			
FB1120	1-469-118-21	FERRITE, EMI (SMD) (1608)			

Ref. No.	Part No.	Description	Remark
FB1121	1-469-118-21	FERRITE, EMI (SMD) (1608)	
FB1122	1-469-118-21	FERRITE, EMI (SMD) (1608)	
FB1123	1-469-118-21	FERRITE, EMI (SMD) (1608)	
FB1124	1-469-118-21	FERRITE, EMI (SMD) (1608)	
FB1125	1-469-118-21	FERRITE, EMI (SMD) (1608)	
FB1138	1-469-118-21	FERRITE, EMI (SMD) (1608)	
FB1139	1-469-118-21	FERRITE, EMI (SMD) (1608)	
FB1140	1-469-118-21	FERRITE, EMI (SMD) (1608)	
FB1141	1-469-118-21	FERRITE, EMI (SMD) (1608)	
FB1142	1-469-118-21	FERRITE, EMI (SMD) (1608)	
FB1143	1-469-118-21	FERRITE, EMI (SMD) (1608)	
FB1169	1-469-118-21	FERRITE, EMI (SMD) (1608)	
FB1170	1-469-118-21	FERRITE, EMI (SMD) (1608)	
FB1171	1-469-118-21	FERRITE, EMI (SMD) (1608)	
FB1172	1-469-118-21	FERRITE, EMI (SMD) (1608)	
FB3501	1-469-118-21	FERRITE, EMI (SMD) (1608) (GZR7D)	
		< FILTER >	
FL401	1-234-177-21	FILTER, CHIP EMI	
FL402	1-233-893-21	FILTER, CHIP EMI	
FL403	1-234-177-21	FILTER, CHIP EMI	
		< IC >	
IC101	6-808-336-01	IC ES29LV320EB70TG-CBA1-0802CE (GZR7D:E3,E12,E15)	
IC101	6-808-337-01	IC ES29LV320EB70TG-CBA1-0802GA (GZR7D:PH,SP,TH)	
IC101	6-808-338-01	IC ES29LV320EB70TG-CBA2-0802UC (GZR9D:E2)	
IC101	6-808-339-01	IC ES29LV320EB70TG-CBA2-0802CE (GZR8D:E3,E12,E15/GZR9D:E3,E15,AUS)	
IC101	6-808-340-01	IC ES29LV320EB70TG-CBA2-0802GA (GZR8D:PH,SP,TH/GZR9D:PH,SP)	
IC102	6-711-269-01	IC CXD9894R	
IC103	(Not supplied)	IC S-24CS64A01-J8T1G	
IC104	(Not supplied)	IC A2V64S40CTP-G6	
IC105	6-702-302-01	IC TK11133CSCL-G	
IC107	6-702-302-01	IC TK11133CSCL-G	
IC110	6-707-739-01	IC MM1661JTRE	
IC201	6-704-524-01	IC FAN8036L	
IC3601	6-710-840-01	IC AK5358AET-E2	
IC4602	6-712-659-01	IC AK4359VF-E2	
		< COIL >	
L3602	1-469-555-21	INDUCTOR 10uH	
		< TRANSISTOR >	
Q101	6-550-008-01	FET UM6K1N-TN	
Q102	6-550-653-01	TRANSISTOR QST8TR	
Q103	8-729-027-52	TRANSISTOR DTC124EKA-T146	
		< RESISTOR >	
R101	1-216-809-11	METAL CHIP 100 5% 1/10W	
R102	1-216-864-11	SHORT CHIP 0	
R103	1-218-864-11	METAL CHIP 5.1K 0.5% 1/10W	
R105	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R106	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R107	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R108	1-216-857-11	METAL CHIP 1M 5% 1/10W	
R109	1-216-864-11	SHORT CHIP 0	
R110	1-216-841-11	METAL CHIP 47K 5% 1/10W	

Ref. No.	Part No.	Description	Remark
R111	1-216-809-11	METAL CHIP 100 5% 1/10W	
R112	1-211-977-11	METAL CHIP 22 0.5% 1/10W	
R113	1-211-977-11	METAL CHIP 22 0.5% 1/10W	
R114	1-216-845-11	METAL CHIP 100K 5% 1/10W	
R115	1-211-977-11	METAL CHIP 22 0.5% 1/10W	
R116	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R117	1-216-841-11	METAL CHIP 47K 5% 1/10W	
R118	1-216-801-11	METAL CHIP 22 5% 1/10W	
R120	1-216-801-11	METAL CHIP 22 5% 1/10W	
R121	1-216-801-11	METAL CHIP 22 5% 1/10W	
R123	1-216-864-11	SHORT CHIP 0	
R124	1-216-841-11	METAL CHIP 47K 5% 1/10W	
R125	1-216-805-11	METAL CHIP 47 5% 1/10W	
R132	1-216-845-11	METAL CHIP 100K 5% 1/10W	
R133	1-216-864-11	SHORT CHIP 0	
R134	1-216-809-11	METAL CHIP 100 5% 1/10W	
R135	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R136	1-216-835-11	METAL CHIP 15K 5% 1/10W	
R137	1-216-809-11	METAL CHIP 100 5% 1/10W	
R138	1-216-809-11	METAL CHIP 100 5% 1/10W	
R139	1-216-864-11	SHORT CHIP 0	
R140	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R141	1-216-855-11	METAL CHIP 680K 5% 1/10W	
R142	1-216-845-11	METAL CHIP 100K 5% 1/10W	
R146	1-216-805-11	METAL CHIP 47 5% 1/10W	
R151	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R152	1-216-864-11	SHORT CHIP 0	
R153	1-216-864-11	SHORT CHIP 0	
R154	1-216-864-11	SHORT CHIP 0	
R155	1-216-864-11	SHORT CHIP 0	
R156	1-216-809-11	METAL CHIP 100 5% 1/10W	
R159	1-216-805-11	METAL CHIP 47 5% 1/10W	
R160	1-216-805-11	METAL CHIP 47 5% 1/10W	
R161	1-216-805-11	METAL CHIP 47 5% 1/10W	
R171	1-216-809-11	METAL CHIP 100 5% 1/10W	
R175	1-216-864-11	SHORT CHIP 0	
R183	1-216-805-11	METAL CHIP 47 5% 1/10W	
R184	1-216-805-11	METAL CHIP 47 5% 1/10W	
R185	1-216-805-11	METAL CHIP 47 5% 1/10W	
R189	1-218-827-11	METAL CHIP 150 0.5% 1/10W	
R190	1-218-827-11	METAL CHIP 150 0.5% 1/10W	
R191	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R192	1-218-827-11	METAL CHIP 150 0.5% 1/10W	
R193	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R195	1-218-827-11	METAL CHIP 150 0.5% 1/10W	
R197	1-218-827-11	METAL CHIP 150 0.5% 1/10W	
R198	1-216-809-11	METAL CHIP 100 5% 1/10W	
R204	1-216-822-11	METAL CHIP 1.2K 5% 1/10W	
R205	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R206	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R207	1-216-826-11	METAL CHIP 2.7K 5% 1/10W	
R208	1-216-839-11	METAL CHIP 33K 5% 1/10W	
R209	1-216-839-11	METAL CHIP 33K 5% 1/10W	
R210	1-216-841-11	METAL CHIP 47K 5% 1/10W	
R212	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R213	1-218-867-11	METAL CHIP 6.8K 0.5% 1/10W	
R214	1-216-835-11	METAL CHIP 15K 5% 1/10W	
R215	1-216-834-11	METAL CHIP 12K 5% 1/10W	
R216	1-216-834-11	METAL CHIP 12K 5% 1/10W	
R219	1-216-838-11	METAL CHIP 27K 5% 1/10W	

DMB18

Ref. No.	Part No.	Description			Remark
R220	1-216-833-11	METAL CHIP	10K	5%	1/10W
R221	1-218-889-11	METAL CHIP	56K	0.5%	1/10W
R223	1-218-895-11	METAL CHIP	100K	0.5%	1/10W
R224	1-216-833-11	METAL CHIP	10K	5%	1/10W
R225	1-218-895-11	METAL CHIP	100K	0.5%	1/10W
R226	1-218-889-11	METAL CHIP	56K	0.5%	1/10W
R230	1-218-893-11	METAL CHIP	82K	0.5%	1/10W
R231	1-218-875-11	METAL CHIP	15K	0.5%	1/10W
R232	1-218-877-11	METAL CHIP	18K	0.5%	1/10W
R233	1-218-883-11	METAL CHIP	33K	0.5%	1/10W
R234	1-216-833-11	METAL CHIP	10K	5%	1/10W
R246	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R247	1-216-821-11	METAL CHIP	1K	5%	1/10W
R321	1-216-864-11	SHORT CHIP	0		
R407	1-216-295-11	SHORT CHIP	0		
R408	1-216-295-11	SHORT CHIP	0		
R501	1-216-864-11	SHORT CHIP	0		
R503	1-216-864-11	SHORT CHIP	0		
R505	1-216-809-11	METAL CHIP	100	5%	1/10W
R506	1-216-809-11	METAL CHIP	100	5%	1/10W
R507	1-216-809-11	METAL CHIP	100	5%	1/10W (GZR8D/GZR9D)
R508	1-216-809-11	METAL CHIP	100	5%	1/10W (GZR8D/GZR9D)
R509	1-216-809-11	METAL CHIP	100	5%	1/10W (GZR8D/GZR9D)
R510	1-216-809-11	METAL CHIP	100	5%	1/10W (GZR8D/GZR9D)
R511	1-216-809-11	METAL CHIP	100	5%	1/10W
R512	1-216-809-11	METAL CHIP	100	5%	1/10W
R514	1-216-809-11	METAL CHIP	100	5%	1/10W
R515	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R516	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R519	1-216-864-11	SHORT CHIP	0		
R521	1-216-833-11	METAL CHIP	10K	5%	1/10W
R522	1-216-833-11	METAL CHIP	10K	5%	1/10W
R523	1-216-833-11	METAL CHIP	10K	5%	1/10W
R524	1-216-833-11	METAL CHIP	10K	5%	1/10W
R532	1-216-864-11	SHORT CHIP	0		
R536	1-216-864-11	SHORT CHIP	0		
R730	1-216-826-11	METAL CHIP	2.7K	5%	1/10W
R781	1-216-833-11	METAL CHIP	10K	5%	1/10W
R782	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1101	1-218-841-11	METAL CHIP	560	0.5%	1/10W
R1102	1-218-827-11	METAL CHIP	150	0.5%	1/10W
R1103	1-216-809-11	METAL CHIP	100	5%	1/10W
R1104	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R1108	1-216-864-11	SHORT CHIP	0		
R1110	1-216-826-11	METAL CHIP	2.7K	5%	1/10W
R1114	1-216-801-11	METAL CHIP	22	5%	1/10W
R1115	1-216-864-11	SHORT CHIP	0		
R1116	1-216-864-11	SHORT CHIP	0		
R1117	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1129	1-216-845-11	METAL CHIP	100K	5%	1/10W
R1133	1-216-864-11	SHORT CHIP	0		
R1134	1-216-864-11	SHORT CHIP	0		
R1135	1-216-864-11	SHORT CHIP	0		
R1145	1-216-864-11	SHORT CHIP	0		
R1150	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R1151	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R1152	1-216-827-11	METAL CHIP	3.3K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R1154	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1155	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1156	1-216-793-11	METAL CHIP	4.7	5%	1/10W
R1157	1-216-793-11	METAL CHIP	4.7	5%	1/10W
R1163	1-216-864-11	SHORT CHIP	0		
R1164	1-216-864-11	SHORT CHIP	0		
R1167	1-216-864-11	SHORT CHIP	0		
R1168	1-216-817-11	METAL CHIP	470	5%	1/10W
R1173	1-216-864-11	SHORT CHIP	0		
R1176	1-216-864-11	SHORT CHIP	0		
R1177	1-216-864-11	SHORT CHIP	0		
R1178	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1179	1-216-809-11	METAL CHIP	100	5%	1/10W
R1180	1-216-809-11	METAL CHIP	100	5%	1/10W
R1182	1-216-864-11	SHORT CHIP	0		
R1184	1-216-809-11	METAL CHIP	100	5%	1/10W
R1185	1-216-809-11	METAL CHIP	100	5%	1/10W
R1187	1-216-805-11	METAL CHIP	47	5%	1/10W (GZR7D)
R1188	1-216-864-11	SHORT CHIP	0		
R1189	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1190	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1191	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1192	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1193	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1194	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1196	1-216-864-11	SHORT CHIP	0		
R1197	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1198	1-216-809-11	METAL CHIP	100	5%	1/10W
R1200	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2504	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R3504	1-216-809-11	METAL CHIP	100	5%	1/10W
R3505	1-216-809-11	METAL CHIP	100	5%	1/10W
R3601	1-216-809-11	METAL CHIP	100	5%	1/10W
R3602	1-216-809-11	METAL CHIP	100	5%	1/10W
R3603	1-216-809-11	METAL CHIP	100	5%	1/10W
R3605	1-216-805-11	METAL CHIP	47	5%	1/10W
R3606	1-216-864-11	SHORT CHIP	0		
R3611	1-216-809-11	METAL CHIP	100	5%	1/10W
R3612	1-216-864-11	SHORT CHIP	0		
R3613	1-216-809-11	METAL CHIP	100	5%	1/10W
R3621	1-216-809-11	METAL CHIP	100	5%	1/10W
R4403	1-216-864-11	SHORT CHIP	0		
R4404	1-216-864-11	SHORT CHIP	0		
R4423	1-216-864-11	SHORT CHIP	0 (GZR8D/GZR9D)		
R4424	1-216-864-11	SHORT CHIP	0 (GZR8D/GZR9D)		
R4443	1-216-864-11	SHORT CHIP	0 (GZR8D/GZR9D)		
R4444	1-216-864-11	SHORT CHIP	0 (GZR8D/GZR9D)		
R4463	1-216-864-11	SHORT CHIP	0		
R4464	1-216-864-11	SHORT CHIP	0		
R4701	1-216-864-11	SHORT CHIP	0		
R4702	1-216-864-11	SHORT CHIP	0		
R4703	1-216-864-11	SHORT CHIP	0		
R4704	1-216-864-11	SHORT CHIP	0		
R4705	1-216-864-11	SHORT CHIP	0		
R4706	1-216-864-11	SHORT CHIP	0		
R4804	1-216-864-11	SHORT CHIP	0		
R4806	1-216-805-11	METAL CHIP	47	5%	1/10W
R4807	1-216-864-11	SHORT CHIP	0		
R5002	1-216-864-11	SHORT CHIP	0 (GZR7D:E3,E12,E15)		

Ref. No.	Part No.	Description			Remark
R5003	1-216-864-11	SHORT CHIP	0		
		(GZR8D:E3,E12,E15/GZR9D:E3,E15,AUS)			
R5012	1-216-864-11	SHORT CHIP	0 (GZR7D:PH,SP,TH)		
R5013	1-216-864-11	SHORT CHIP	0		
		(GZR8D:PH,SP,TH/GZR9D:PH,SP)			
R5023	1-216-864-11	SHORT CHIP	0 (GZR9D:E2)		
		< NETWORK RESISTOR >			
RB103	1-234-400-21	CONDUCTOR, NETWORK 0X4 (1005)			
RB104	1-234-400-21	CONDUCTOR, NETWORK 0X4 (1005)			
RB105	1-234-371-21	RES, NETWORK 47X4 (1005)			
RB106	1-234-371-21	RES, NETWORK 47X4 (1005)			
RB107	1-234-400-21	CONDUCTOR, NETWORK 0X4 (1005)			
RB108	1-234-400-21	CONDUCTOR, NETWORK 0X4 (1005)			
RB109	1-234-370-21	RES, NETWORK 22X4 (1005)			
RB110	1-234-370-21	RES, NETWORK 22X4 (1005)			
RB111	1-234-400-21	CONDUCTOR, NETWORK 0X4 (1005)			
RB112	1-234-370-21	RES, NETWORK 22X4 (1005)			
RB113	1-234-370-21	RES, NETWORK 22X4 (1005)			
RB114	1-234-400-21	CONDUCTOR, NETWORK 0X4 (1005)			
RB115	1-234-400-21	CONDUCTOR, NETWORK 0X4 (1005)			
RB121	1-234-378-21	RES, NETWORK 10KX4 (1005)			
		< VIBRATOR >			
X101	1-813-539-11	QUARTZ CRYSTAL UNIT (27MHz)			
**********					
		DMPORT BOARD			
		**********			
		< CAPACITOR >			
C210	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C211	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C229	1-126-193-11	ELECT CHIP	1uF	20%	50V
C230	1-126-193-11	ELECT CHIP	1uF	20%	50V
C231	1-126-193-11	ELECT CHIP	1uF	20%	50V
C232	1-126-193-11	ELECT CHIP	1uF	20%	50V
C237	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C238	1-126-395-11	ELECT CHIP	22uF	20%	16V
C239	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C240	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C241	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
		< CONNECTOR >			
CN201	1-784-861-51	CONNECTOR, FFC (LIF(NON-ZIF)) 9P			
CN203	1-770-469-21	PIN, CONNECTOR (PC BOARD) 2P			
CN204	1-817-615-21	CONNECTOR, SQUARE TYPE (RECE) 18P			
					(DMPORT)
		< IC >			
IC202	8-759-100-96	IC uPC4558G2			
		< COIL >			
L200	1-469-555-21	INDUCTOR	10uH		
		< RESISTOR >			
R203	1-218-879-11	METAL CHIP	22K	0.5%	1/10W
R204	1-216-864-11	SHORT CHIP	0		
R205	1-216-809-11	METAL CHIP	100	5%	1/10W
R206	1-216-864-11	SHORT CHIP	0		
R207	1-216-864-11	SHORT CHIP	0		

Ref. No.	Part No.	Description			Remark
R208	1-218-879-11	METAL CHIP	22K	0.5%	1/10W
R209	1-216-845-11	METAL CHIP	100K	5%	1/10W
R214	1-218-879-11	METAL CHIP	22K	0.5%	1/10W
R215	1-218-879-11	METAL CHIP	22K	0.5%	1/10W
R224	1-216-809-11	METAL CHIP	100	5%	1/10W
R227	1-218-879-11	METAL CHIP	22K	0.5%	1/10W
R228	1-218-879-11	METAL CHIP	22K	0.5%	1/10W
R229	1-218-879-11	METAL CHIP	22K	0.5%	1/10W
R230	1-218-879-11	METAL CHIP	22K	0.5%	1/10W
R231	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R232	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R239	1-216-864-11	SHORT CHIP	0		
R241	1-216-296-11	SHORT CHIP	0		
**********					
	A-1103-756-B	DRIVER BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C715	1-126-933-11	ELECT	100uF	20%	16V
C731	1-126-964-11	ELECT	10uF	20%	50V
C735	1-164-159-21	CERAMIC	0.1uF		50V
C736	1-164-159-21	CERAMIC	0.1uF		50V
C737	1-164-159-21	CERAMIC	0.1uF		50V
C741	1-162-306-11	CERAMIC	0.01uF	20%	16V
C751	1-162-306-11	CERAMIC	0.01uF	20%	16V
C752	1-164-159-21	CERAMIC	0.1uF		50V
		< CONNECTOR >			
CN701	1-784-735-11	CONNECTOR, FFC 13P			
CN702	1-784-766-11	CONNECTOR, FFC 5P			
* CN703	1-564-720-11	PIN, CONNECTOR (SMALL TYPE) 4P			
CN704	1-785-328-11	PIN, CONNECTOR (LIGHT ANGLE) 2P			
		< DIODE >			
D701	8-719-921-42	DIODE MTZJ-5.1A			
D711	8-719-109-69	DIODE RD3.6ESB2			
		< IC >			
IC701	8-759-598-69	IC BA6956AN			
IC712	8-759-598-69	IC BA6956AN			
		< TRANSISTOR >			
Q731	8-729-029-66	TRANSISTOR DTC114ESA			
		< RESISTOR >			
R701	1-249-413-11	CARBON	470	5%	1/4W
R702	1-247-807-31	CARBON	100	5%	1/4W
R711	1-249-417-11	CARBON	1K	5%	1/4W
R712	1-249-425-11	CARBON	4.7K	5%	1/4W
R713	1-249-433-11	CARBON	22K	5%	1/4W
R721	1-249-425-11	CARBON	4.7K	5%	1/4W
R722	1-249-425-11	CARBON	4.7K	5%	1/4W
R723	1-249-425-11	CARBON	4.7K	5%	1/4W
R731	1-247-807-31	CARBON	100	5%	1/4W
R732	1-249-429-11	CARBON	10K	5%	1/4W
R733	1-249-417-11	CARBON	1K	5%	1/4W
R734	1-249-430-11	CARBON	12K	5%	1/4W
R736	1-249-412-11	CARBON	390	5%	1/4W
R751	1-249-425-11	CARBON	4.7K	5%	1/4W
**********					

HEADPHONE **KEY-LEFT** **KEY-RIGHT** **MAIN**

Ref. No.	Part No.	Description			Remark
		HEADPHONE BOARD			
		**********			
		< CAPACITOR >			
C822	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C823	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C824	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
		< CABLE HOLDER >			
CN801	1-820-830-11	HOLDER, CABLE 6P			
		< JACK >			
J803	1-794-702-11	JACK, HEADPHONE (PHONES)			
		< RESISTOR >			
R821	1-216-805-11	METAL CHIP	47	5%	1/10W
R822	1-216-805-11	METAL CHIP	47	5%	1/10W
R823	1-216-805-11	METAL CHIP	47	5%	1/10W
R824	1-216-805-11	METAL CHIP	47	5%	1/10W
**********					
		KEY-LEFT BOARD			
		**********			
		< DIODE >			
D611	6-501-483-01	LED SLR-325VCT31P (STANDBY)			
D612	8-719-060-27	LED SLR-325MCT31 (SUBWOOFER) (GZR9D)			
		< RESISTOR >			
R602	1-216-815-11	METAL CHIP	330	5%	1/10W
R603	1-216-817-11	METAL CHIP	470	5%	1/10W
R604	1-216-819-11	METAL CHIP	680	5%	1/10W
R605	1-216-821-11	METAL CHIP	1K	5%	1/10W
R606	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R607	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R608	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R609	1-216-833-11	METAL CHIP	10K	5%	1/10W (GZR9D)
R655	1-216-821-11	METAL CHIP	1K	5%	1/10W
R688	1-216-821-11	METAL CHIP	1K	5%	1/10W (GZR9D)
R698	1-216-821-11	METAL CHIP	1K	5%	1/10W (GZR9D)
		< SWITCH >			
S602	1-771-410-21	SWITCH, TACTILE (I/⏻)			
S603	1-771-410-21	SWITCH, TACTILE (DVD)			
S604	1-771-410-21	SWITCH, TACTILE (USB)			
S605	1-771-410-21	SWITCH, TACTILE (TAPE A/B)			
S606	1-771-410-21	SWITCH, TACTILE (TUNER/BAND)			
S607	1-771-410-21	SWITCH, TACTILE (DMPORT)			
S608	1-771-410-21	SWITCH, TACTILE (VIDEO/SAT)			
S609	1-771-410-21	SWITCH, TACTILE (SUBWOOFER) (GZR9D)			
**********					
		KEY-RIGHT BOARD			
		**********			
		< RESISTOR >			
R631	1-216-821-11	METAL CHIP	1K	5%	1/10W
R632	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R633	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R634	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R635	1-216-833-11	METAL CHIP	10K	5%	1/10W
R636	1-216-837-11	METAL CHIP	22K	5%	1/10W
R637	1-216-841-11	METAL CHIP	47K	5%	1/10W
		< SWITCH >			
S628	1-771-410-21	SWITCH, TACTILE (DISC SKIP/EX-CHANGE)			
S631	1-771-410-21	SWITCH, TACTILE (REC TO USB)			
S632	1-771-410-21	SWITCH, TACTILE (REC TO TAPE)			
S633	1-771-410-21	SWITCH, TACTILE (OPTIONS)			
S634	1-771-410-21	SWITCH, TACTILE (⏏ OPEN/CLOSE)			
S635	1-771-410-21	SWITCH, TACTILE (DISC 1)			
S636	1-771-410-21	SWITCH, TACTILE (DISC 2)			
S637	1-771-410-21	SWITCH, TACTILE (DISC 3)			
		< CABLE HOLDER >			
WH615	1-824-027-21	HOLDER, CABLE 3P			
**********					
	A-1488-027-A	MAIN BOARD, COMPLETE (GZR9D:E3,E15)			
	A-1489-658-A	MAIN BOARD, COMPLETE (GZR9D:PH,SP)			
	A-1489-660-A	MAIN BOARD, COMPLETE (GZR9D:E2)			
	A-1493-107-A	MAIN BOARD, COMPLETE (GZR8D:E3,E15)			
	A-1493-113-A	MAIN BOARD, COMPLETE (GZR8D:E12)			
	A-1493-118-A	MAIN BOARD, COMPLETE (GZR8D:PH,SP,TH)			
	A-1493-879-A	MAIN BOARD, COMPLETE (GZR7D:E3,E15)			
	A-1493-883-A	MAIN BOARD, COMPLETE (GZR7D:E12)			
	A-1493-888-A	MAIN BOARD, COMPLETE (GZR7D:PH,SP,TH)			
	A-1545-269-A	MAIN BOARD, COMPLETE (GZR9D:AUS)			
		**********			
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3			
		< CAPACITOR >			
C001	1-126-946-11	ELECT	6800uF	20%	25V
C002	1-104-665-11	ELECT	100uF	20%	25V
C003	1-104-665-11	ELECT	100uF	20%	25V
C004	1-126-946-11	ELECT	6800uF	20%	25V
C005	1-126-964-11	ELECT	10uF	20%	50V
C006	1-136-165-00	FILM	0.1uF	5%	50V
C007	1-136-165-00	FILM	0.1uF	5%	50V
C010	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C012	1-104-665-11	ELECT	100uF	20%	25V
C026	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C027	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C059	1-107-721-11	ELECT	4.7uF	20%	100V
C060	1-107-721-11	ELECT	4.7uF	20%	100V
C101	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C102	1-126-964-11	ELECT	10uF	20%	50V
C103	1-126-964-11	ELECT	10uF	20%	50V
C104	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C105	1-100-597-11	CERAMIC CHIP	0.1uF	10%	25V
C106	1-126-934-11	ELECT	220uF	20%	16V
C107	1-126-959-11	ELECT	0.47uF	20%	50V
C108	1-126-964-11	ELECT	10uF	20%	50V
C111	1-126-964-11	ELECT	10uF	20%	50V
C112	1-126-964-11	ELECT	10uF	20%	50V
C115	1-126-964-11	ELECT	10uF	20%	50V
C116	1-126-964-11	ELECT	10uF	20%	50V
C119	1-126-964-11	ELECT	10uF	20%	50V
C120	1-126-964-11	ELECT	10uF	20%	50V

Ref. No.	Part No.	Description			Remark
C121	1-126-964-11	ELECT	10uF	20%	50V
C122	1-126-964-11	ELECT	10uF	20%	50V
C127	1-126-964-11	ELECT	10uF	20%	50V
C128	1-126-964-11	ELECT	10uF	20%	50V
C129	1-126-964-11	ELECT	10uF	20%	50V
C130	1-126-964-11	ELECT	10uF	20%	50V
C131	1-162-969-11	CERAMIC CHIP	0.0068uF	10%	25V
C132	1-162-969-11	CERAMIC CHIP	0.0068uF	10%	25V
C133	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C134	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C135	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C136	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C137	1-126-964-11	ELECT	10uF	20%	50V
C138	1-126-964-11	ELECT	10uF	20%	50V
C139	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V
C140	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V
C141	1-126-961-11	ELECT	2.2uF	20%	50V
C142	1-126-961-11	ELECT	2.2uF	20%	50V
C143	1-136-167-00	FILM	0.15uF	5%	50V (GZR8D/GZR9D)
C143	1-137-189-11	FILM	0.18uF	5%	50V (GZR7D)
C144	1-136-167-00	FILM	0.15uF	5%	50V (GZR8D/GZR9D)
C144	1-137-189-11	FILM	0.18uF	5%	50V (GZR7D)
C145	1-137-190-11	FILM	0.22uF	5%	50V (GZR7D)
C145	1-136-171-00	FILM	0.33uF	5%	50V (GZR8D/GZR9D)
C146	1-137-190-11	FILM	0.22uF	5%	50V (GZR7D)
C146	1-136-171-00	FILM	0.33uF	5%	50V (GZR8D/GZR9D)
C147	1-126-960-11	ELECT	1uF	20%	50V
C148	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C149	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C151	1-126-964-11	ELECT	10uF	20%	50V
C152	1-126-964-11	ELECT	10uF	20%	50V
C153	1-126-964-11	ELECT	10uF	20%	50V
C154	1-126-964-11	ELECT	10uF	20%	50V
C155	1-124-261-00	ELECT	10uF	20%	50V
C156	1-126-964-11	ELECT	10uF	20%	50V
C157	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C158	1-126-959-11	ELECT	0.47uF	20%	50V
C160	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C161	1-126-965-11	ELECT	22uF	20%	50V
C162	1-124-257-00	ELECT	2.2uF	20%	50V
C163	1-124-465-00	ELECT	0.47uF	20%	50V
C164	1-126-961-11	ELECT	2.2uF	20%	50V
C165	1-126-957-11	ELECT	0.22uF	20%	50V
C166	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C167	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C170	1-137-189-11	FILM	0.18uF	5%	50V (GZR9D)
C170	1-137-190-11	FILM	0.22uF	5%	50V (GZR7D/GZR8D)
C175	1-162-969-11	CERAMIC CHIP	0.0068uF	10%	25V
C176	1-162-969-11	CERAMIC CHIP	0.0068uF	10%	25V
C201	1-162-960-11	CERAMIC CHIP	220PF	10%	50V (GZR8D/GZR9D)
C202	1-162-960-11	CERAMIC CHIP	220PF	10%	50V (GZR8D/GZR9D)
C203	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C204	1-162-960-11	CERAMIC CHIP	220PF	10%	50V (GZR8D/GZR9D)
C205	1-126-964-11	ELECT	10uF	20%	50V
C206	1-126-964-11	ELECT	10uF	20%	50V
C207	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V (GZR8D/GZR9D)
C208	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V (GZR8D/GZR9D)
C209	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V (GZR8D/GZR9D)
C209	1-216-864-11	SHORT CHIP	0 (GZR7D)		
C210	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V (GZR8D/GZR9D)
C210	1-216-864-11	SHORT CHIP	0 (GZR7D)		
C211	1-126-964-11	ELECT	10uF	20%	50V (GZR8D/GZR9D)
C212	1-126-964-11	ELECT	10uF	20%	50V (GZR8D/GZR9D)
C215	1-130-491-00	MYLAR	0.047uF	5%	50V (GZR8D/GZR9D)
C216	1-126-933-11	ELECT	100uF	20%	16V (GZR8D/GZR9D)
C217	1-126-964-11	ELECT	10uF	20%	50V (GZR8D/GZR9D)
C218	1-126-964-11	ELECT	10uF	20%	50V (GZR8D/GZR9D)
C219	1-137-190-11	FILM	0.22uF	5%	50V (GZR8D/GZR9D)
C220	1-137-190-11	FILM	0.22uF	5%	50V (GZR8D/GZR9D)
C221	1-137-190-11	FILM	0.22uF	5%	50V (GZR8D/GZR9D)
C222	1-137-190-11	FILM	0.22uF	5%	50V (GZR8D/GZR9D)
C223	1-126-964-11	ELECT	10uF	20%	50V (GZR8D/GZR9D)
C224	1-126-964-11	ELECT	10uF	20%	50V (GZR8D/GZR9D)
C225	1-126-964-11	ELECT	10uF	20%	50V (GZR8D/GZR9D)
C226	1-137-190-11	FILM	0.22uF	5%	50V (GZR8D/GZR9D)
C227	1-126-964-11	ELECT	10uF	20%	50V (GZR9D)
C228	1-130-495-00	MYLAR	0.1uF	5%	50V (GZR8D/GZR9D)
C229	1-126-960-11	ELECT	1uF	20%	50V (GZR8D/GZR9D)
C230	1-162-927-11	CERAMIC CHIP	100PF	5%	50V (GZR8D/GZR9D)
C231	1-104-665-11	ELECT	100uF	20%	25V
C232	1-162-927-11	CERAMIC CHIP	100PF	5%	50V (GZR8D/GZR9D)
C233	1-100-597-11	CERAMIC CHIP	0.1uF	10%	25V (GZR8D/GZR9D)
C234	1-126-964-11	ELECT	10uF	20%	50V (GZR8D/GZR9D)
C235	1-126-964-11	ELECT	10uF	20%	50V (GZR8D/GZR9D)
C236	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V (GZR8D/GZR9D)

MAIN

Ref. No.	Part No.	Description			Remark
C237	1-126-964-11	ELECT	10uF	20% 50V	(GZR8D/GZR9D)
C238	1-162-964-11	CERAMIC CHIP	0.001uF	10% 50V	(GZR8D/GZR9D)
C239	1-126-964-11	ELECT	10uF	20% 50V	(GZR8D/GZR9D)
C241	1-162-964-11	CERAMIC CHIP	0.001uF	10% 50V	(GZR8D/GZR9D)
C242	1-162-964-11	CERAMIC CHIP	0.001uF	10% 50V	(GZR8D/GZR9D)
C243	1-126-964-11	ELECT	10uF	20% 50V	(GZR8D/GZR9D)
C244	1-126-964-11	ELECT	10uF	20% 50V	(GZR8D/GZR9D)
C245	1-162-964-11	CERAMIC CHIP	0.001uF	10% 50V	(GZR8D/GZR9D)
C246	1-162-964-11	CERAMIC CHIP	0.001uF	10% 50V	(GZR8D/GZR9D)
C247	1-126-964-11	ELECT	10uF	20% 50V	(GZR8D/GZR9D)
C248	1-126-964-11	ELECT	10uF	20% 50V	(GZR8D/GZR9D)
C251	1-164-227-11	CERAMIC CHIP	0.022uF	10% 25V	(GZR8D/GZR9D)
C252	1-164-227-11	CERAMIC CHIP	0.022uF	10% 25V	(GZR8D/GZR9D)
C253	1-126-963-11	ELECT	4.7uF	20% 50V	(GZR8D/GZR9D)
C254	1-126-963-11	ELECT	4.7uF	20% 50V	(GZR8D/GZR9D)
C255	1-126-963-11	ELECT	4.7uF	20% 50V	(GZR8D/GZR9D)
C256	1-126-963-11	ELECT	4.7uF	20% 50V	(GZR8D/GZR9D)
C257	1-109-953-11	ELECT	2.2uF	20% 50V	
C258	1-126-933-11	ELECT	100uF	20% 16V	(GZR8D/GZR9D)
C260	1-162-960-11	CERAMIC CHIP	220PF	10% 50V	(GZR8D/GZR9D)
C261	1-126-933-11	ELECT	100uF	20% 16V	(GZR8D/GZR9D)
C278	1-109-953-11	ELECT	2.2uF	20% 50V	
C301	1-162-960-11	CERAMIC CHIP	220PF	10% 50V	
C302	1-162-960-11	CERAMIC CHIP	220PF	10% 50V	
C306	1-164-156-11	CERAMIC CHIP	0.1uF	25V	(GZR7D/GZR8D)
C307	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V	(GZR7D)
C308	1-126-965-11	ELECT	22uF	20% 50V	(GZR7D)
C309	1-162-964-11	CERAMIC CHIP	0.001uF	10% 50V	(EXCEPT AUS)
C310	1-104-662-11	ELECT	22uF	20% 25V	(EXCEPT AUS)
C311	1-126-964-11	ELECT	10uF	20% 50V	(EXCEPT AUS)
C312	1-125-891-11	CERAMIC CHIP	0.47uF	10% 10V	(EXCEPT AUS)
C314	1-104-666-11	ELECT	220uF	20% 25V	(EXCEPT AUS)
C315	1-127-715-11	CERAMIC CHIP	0.22uF	10% 16V	(EXCEPT AUS)
C316	1-162-964-11	CERAMIC CHIP	0.001uF	10% 50V	(GZR7D/GZR8D)
C317	1-162-919-11	CERAMIC CHIP	22PF	5% 50V	(GZR7D/GZR8D)
C318	1-162-923-11	CERAMIC CHIP	47PF	5% 50V	(GZR7D/GZR8D)
C319	1-126-947-11	ELECT	47uF	20% 35V	(GZR7D/GZR8D)
C320	1-126-964-11	ELECT	10uF	20% 50V	(GZR7D/GZR8D)
C321	1-100-597-11	CERAMIC CHIP	0.1uF	10% 25V	
C322	1-126-923-11	ELECT	220uF	20% 10V	(GZR7D/GZR8D)
C407	1-162-927-11	CERAMIC CHIP	100PF	5% 50V	
C408	1-162-927-11	CERAMIC CHIP	100PF	5% 50V	
C409	1-162-927-11	CERAMIC CHIP	100PF	5% 50V	
C410	1-162-927-11	CERAMIC CHIP	100PF	5% 50V	
C411	1-164-156-11	CERAMIC CHIP	0.1uF	25V	
C412	1-164-156-11	CERAMIC CHIP	0.1uF	25V	
C413	1-162-964-11	CERAMIC CHIP	0.001uF	10% 50V	
C414	1-162-964-11	CERAMIC CHIP	0.001uF	10% 50V	
C423	1-162-964-11	CERAMIC CHIP	0.001uF	10% 50V	
C424	1-165-908-11	CERAMIC CHIP	1uF	10% 10V	
C425	1-162-913-11	CERAMIC CHIP	8PF	0.5PF 50V	
C426	1-162-912-11	CERAMIC CHIP	7PF	0.5PF 50V	
C427	1-125-891-11	CERAMIC CHIP	0.47uF	10% 10V	
C428	1-164-156-11	CERAMIC CHIP	0.1uF	25V	
C430	1-126-916-11	ELECT	1000uF	20% 6.3V	
C431	1-164-156-11	CERAMIC CHIP	0.1uF	25V	
C501	1-164-156-11	CERAMIC CHIP	0.1uF	25V	
C502	1-104-665-11	ELECT	100uF	20% 25V	
C503	1-104-665-11	ELECT	100uF	20% 25V	
C504	1-164-156-11	CERAMIC CHIP	0.1uF	25V	
C505	1-107-826-11	CERAMIC CHIP	0.1uF	10% 16V	
C508	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V	
C551	1-164-156-11	CERAMIC CHIP	0.1uF	25V	
C552	1-126-964-11	ELECT	10uF	20% 50V	
C553	1-126-964-11	ELECT	10uF	20% 50V	
C554	1-126-947-11	ELECT	47uF	20% 35V	
C555	1-115-467-11	CERAMIC CHIP	0.22uF	10% 10V	
C556	1-164-156-11	CERAMIC CHIP	0.1uF	25V	
C557	1-126-960-11	ELECT	1uF	20% 50V	
C558	1-126-933-11	ELECT	100uF	20% 16V	
C559	1-164-156-11	CERAMIC CHIP	0.1uF	25V	
C601	1-104-662-11	ELECT	22uF	20% 25V	
C602	1-126-960-11	ELECT	1uF	20% 50V	
C603	1-126-947-11	ELECT	47uF	20% 35V	
C604	1-126-964-11	ELECT	10uF	20% 50V	
C605	1-126-964-11	ELECT	10uF	20% 50V	
C606	1-126-964-11	ELECT	10uF	20% 50V	
C607	1-104-662-11	ELECT	22uF	20% 25V	(GZR8D/GZR9D)
C608	1-126-960-11	ELECT	1uF	20% 50V	(GZR8D/GZR9D)
C609	1-126-947-11	ELECT	47uF	20% 35V	(GZR8D/GZR9D)
C610	1-126-933-11	ELECT	100uF	20% 16V	(GZR8D/GZR9D)
C611	1-126-947-11	ELECT	47uF	20% 35V	(GZR8D/GZR9D)
C612	1-126-947-11	ELECT	47uF	20% 35V	
C701	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V	
C702	1-126-947-11	ELECT	47uF	20% 35V	
C703	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V	
C704	1-126-947-11	ELECT	47uF	20% 35V	
C705	1-126-947-11	ELECT	47uF	20% 35V	

Ref. No.	Part No.	Description			Remark
C706	1-126-947-11	ELECT	47uF	20%	35V
C707	1-126-961-11	ELECT	2.2uF	20%	50V
C708	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C709	1-126-960-11	ELECT	1uF	20%	50V
C710	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C711	1-104-658-11	ELECT	100uF	20%	10V
C713	1-126-961-11	ELECT	2.2uF	20%	50V
C714	1-126-947-11	ELECT	47uF	20%	35V
C715	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
		< CONNECTOR >			
CN071	1-766-956-11	CONNECTOR, BOARD TO BOARD 15P			
CN101	1-784-770-11	CONNECTOR, FFC 9P			
CN102	1-568-830-11	CONNECTOR, FFC 11P			
CN103	1-568-830-11	CONNECTOR, FFC 11P			
CN201	1-784-418-11	CONNECTOR, FFC (LIF(NON-ZIF) 21P			(GZR8D/GZR9D)
CN202	1-784-417-11	CONNECTOR, FFC (LIF(NON-ZIF) 23P (GZR7D)			
CN203	1-774-628-11	CONNECTOR, BOARD TO BOARD 17P			(GZR8D/GZR9D)
CN204	1-778-981-21	CONNECTOR, BOARD TO BOARD 13P (GZR7D)			
CN205	1-778-981-21	CONNECTOR, BOARD TO BOARD 13P			(GZR8D/GZR9D)
CN401	1-784-766-11	CONNECTOR, FFC 5P			
CN402	1-568-844-11	CONNECTOR, FFC 29P			
CN502	1-779-277-11	CONNECTOR, FFC (LIF(NON-ZIF)) 9P			
CN503	1-779-283-11	CONNECTOR, FFC (LIF(NON-ZIF)) 15P			
CN601	1-819-131-11	PIN, CONNECTOR 3P			
CN602	1-819-131-11	PIN, CONNECTOR 3P (GZR8D/GZR9D)			
		< DIODE >			
D001	8-719-077-77	DIODE	D3SB60F3		
D002	6-501-727-01	DIODE	MAZ8047GHLS0		
D003	6-501-817-01	DIODE	MA2J1110GLS0		
D004	6-501-713-01	DIODE	MAZ8033G0LS0		
D006	6-501-817-01	DIODE	MA2J1110GLS0		
D007	6-501-719-01	DIODE	MAZ8039GHLS0		
D009	6-500-335-01	DIODE	MC2838-T112-1		
D101	6-501-579-01	DIODE	MC2837		
D102	6-500-334-01	DIODE	MC2836-T112-1		
D103	6-501-579-01	DIODE	MC2837		
D104	6-501-817-01	DIODE	MA2J1110GLS0		
D107	6-500-334-01	DIODE	MC2836-T112-1		
D201	6-501-817-01	DIODE	MA2J1110GLS0		
D202	6-500-335-01	DIODE	MC2838-T112-1		
D301	6-501-727-01	DIODE	MAZ8047GHLS0 (EXCEPT AUS)		
D551	6-500-334-01	DIODE	MC2836-T112-1		
D552	6-500-334-01	DIODE	MC2836-T112-1		
D553	6-501-817-01	DIODE	MA2J1110GLS0		
D601	6-501-744-01	DIODE	MAZ8068GHLS0		
D602	6-501-768-01	DIODE	MAZ8120GMLS0		
D603	6-501-817-01	DIODE	MA2J1110GLS0		
D604	6-500-334-01	DIODE	MC2836-T112-1 (GZR8D/GZR9D)		
D701	6-501-579-01	DIODE	MC2837		
D702	6-501-579-01	DIODE	MC2837		
D704	6-501-817-01	DIODE	MA2J1110GLS0		
D708	6-501-579-01	DIODE	MC2837		
		< FERRITE BEAD >			
FB201	1-414-229-11	INDUCTOR, FERRITE BEAD (AUS)			
FB202	1-414-229-11	INDUCTOR, FERRITE BEAD (AUS)			
FB214	1-414-234-22	INDUCTOR, FERRITE BEAD (AUS)			
FB215	1-414-234-22	INDUCTOR, FERRITE BEAD (AUS)			
		< IC >			
IC001	6-700-830-01	IC	KIA7809API		
IC002	6-700-830-01	IC	KIA7809API		
IC003	6-700-830-01	IC	KIA7809API		
IC101	6-712-027-01	IC	R2A15216FP		
IC201	6-703-651-11	IC	M61530FP-D60G (GZR8D/GZR9D)		
IC301	8-759-278-58	IC	NJM4558V-TE2 (GZR7D/GZR8D)		
IC302	6-600-461-21	IC	TOTX147L(F,T)		(DVD DIGITAL OUT (OPTICAL)) (GZR7D)
IC401	A-1554-569-A	IC	uPD78F1106GF(S)-GAS-AX (for SERVICE)		
IC551	(Not supplied)	IC	S-24CS16A0I-J8T1G		
IC552	6-712-722-01	IC	PST8229UL		
IC553	6-712-179-01	IC	NJM2370R04(TE1)		
IC701	8-759-700-07	IC	NJM2903M		
IC702	8-759-700-07	IC	NJM2903M		
IC703	8-759-359-49	IC	NJM3414AV(TE2)		
		< JACK >			
J301	1-815-045-11	JACK, PIN 2P (VIDEO/SAT (AUDIO IN))			
J302	1-774-785-11	JACK, PIN 1P (SUBWOOFER OUT)			(GZR7D/GZR8D)
		< CONNECTOR >			
J303	1-820-048-11	CONNECTOR (LIGHTING) 5P			(D-LIGHT SYNC OUT) (EXCEPT AUS)
		< JUMPER RESISTOR >			
JR101	1-216-864-11	SHORT CHIP	0		
JR102	1-216-864-11	SHORT CHIP	0		
JR103	1-216-864-11	SHORT CHIP	0		
JR104	1-216-864-11	SHORT CHIP	0		
JR105	1-216-864-11	SHORT CHIP	0		
JR106	1-216-864-11	SHORT CHIP	0		
JR107	1-216-864-11	SHORT CHIP	0		
JR108	1-216-864-11	SHORT CHIP	0		
JR109	1-216-864-11	SHORT CHIP	0		
JR110	1-216-864-11	SHORT CHIP	0		
JR111	1-216-864-11	SHORT CHIP	0		
JR112	1-216-864-11	SHORT CHIP	0		
JR113	1-216-864-11	SHORT CHIP	0		
JR114	1-216-864-11	SHORT CHIP	0		
JR115	1-216-864-11	SHORT CHIP	0		
JR116	1-216-864-11	SHORT CHIP	0		
JR117	1-216-864-11	SHORT CHIP	0		
JR118	1-216-864-11	SHORT CHIP	0		
JR119	1-216-864-11	SHORT CHIP	0		
JR401	1-216-864-11	SHORT CHIP	0		
JR402	1-216-864-11	SHORT CHIP	0		
		< TRANSISTOR >			
Q011	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q012	8-729-036-89	TRANSISTOR	KTC3198GR-AT		
Q101	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF		
Q102	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF		
Q103	8-729-040-76	TRANSISTOR	KTA1273-Y-AT		
Q104	8-729-037-13	TRANSISTOR	KTA1271Y		
Q105	6-551-276-01	TRANSISTOR	RT1N431C-TP-1		

MAIN

Ref. No.	Part No.	Description	Remark
Q106	6-551-276-01	TRANSISTOR RT1N431C-TP-1	
Q107	6-551-276-01	TRANSISTOR RT1N431C-TP-1	
Q128	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
Q178	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
Q251	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
Q252	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
Q253	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	(GZR8D/GZR9D)
Q254	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	(GZR8D/GZR9D)
Q255	8-729-027-23	TRANSISTOR DTA114EKA-T146	(GZR8D/GZR9D)
Q256	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	(GZR8D/GZR9D)
Q257	8-729-027-23	TRANSISTOR DTA114EKA-T146	(GZR8D/GZR9D)
Q258	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
Q259	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q261	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q301	8-729-056-46	TRANSISTOR 2SC5053T100Q (EXCEPT AUS)	
Q302	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	(EXCEPT AUS)
Q303	8-729-037-13	TRANSISTOR KTA1271Y (EXCEPT AUS)	
Q304	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	(EXCEPT AUS)
Q401	6-551-681-01	TRANSISTOR RT1P431C-TP-1	
Q402	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q403	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q551	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
Q552	6-551-696-01	TRANSISTOR ISA1235AC1TP-1EF	
Q553	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q601	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
Q602	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
Q603	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
Q604	8-729-036-89	TRANSISTOR KTC3198GR-AT	
Q605	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
Q606	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
Q607	8-729-037-13	TRANSISTOR KTA1271Y	
Q608	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
Q609	8-729-120-28	TRANSISTOR 2SC1623-L5L6	(GZR8D:E12,PH,SP,TH/GZR9D)
Q609	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	(GZR8D:E3,E15)
Q610	8-729-120-28	TRANSISTOR 2SC1623-L5L6	(GZR8D:E12,PH,SP,TH/GZR9D)
Q610	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	(GZR8D:E3,E15)
Q611	8-729-120-28	TRANSISTOR 2SC1623-L5L6	(GZR8D:E12,PH,SP,TH/GZR9D)
Q611	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	(GZR8D:E3,E15)
Q612	8-729-037-03	TRANSISTOR KTA1266GR-AT (GZR8D/GZR9D)	
Q613	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	(GZR8D/GZR9D)
Q614	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	(GZR8D/GZR9D)
Q615	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
Q616	8-729-036-89	TRANSISTOR KTC3198GR-AT	
Q617	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
Q618	8-729-037-13	TRANSISTOR KTA1271Y	
Q619	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
Q916	8-729-037-13	TRANSISTOR KTA1271Y	

Ref. No.	Part No.	Description			Remark
		< RESISTOR >			
R001	1-216-801-11	METAL CHIP	22	5%	1/10W
R002	1-216-821-11	METAL CHIP	1K	5%	1/10W
R003	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
⚠ R004	1-215-860-11	METAL OXIDE	33	5%	1W F
R010	1-216-837-11	METAL CHIP	22K	5%	1/10W
R013	1-216-837-11	METAL CHIP	22K	5%	1/10W
R014	1-216-833-11	METAL CHIP	10K	5%	1/10W
R016	1-216-845-11	METAL CHIP	100K	5%	1/10W
R020	1-216-836-11	METAL CHIP	18K	5%	1/10W
R021	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R022	1-216-857-11	METAL CHIP	1M	5%	1/10W
⚠ R059	1-215-890-11	METAL OXIDE	470	5%	2W F
⚠ R060	1-215-890-11	METAL OXIDE	470	5%	2W F
R063	1-216-809-11	METAL CHIP	100	5%	1/10W
R064	1-216-809-11	METAL CHIP	100	5%	1/10W
R101	1-216-809-11	METAL CHIP	100	5%	1/10W
R102	1-216-809-11	METAL CHIP	100	5%	1/10W
R103	1-216-809-11	METAL CHIP	100	5%	1/10W
R104	1-216-809-11	METAL CHIP	100	5%	1/10W
R105	1-216-809-11	METAL CHIP	100	5%	1/10W
R106	1-216-809-11	METAL CHIP	100	5%	1/10W
R107	1-216-809-11	METAL CHIP	100	5%	1/10W
R108	1-216-809-11	METAL CHIP	100	5%	1/10W
R109	1-216-809-11	METAL CHIP	100	5%	1/10W
R110	1-216-809-11	METAL CHIP	100	5%	1/10W
R111	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R112	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R113	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R114	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R115	1-216-833-11	METAL CHIP	10K	5%	1/10W
R116	1-216-833-11	METAL CHIP	10K	5%	1/10W
R117	1-216-818-11	METAL CHIP	560	5%	1/10W (GZR9D)
R117	1-218-289-11	METAL CHIP	510	5%	1/10W (GZR8D)
R117	1-220-373-11	METAL CHIP	620	5%	1/10W (GZR7D)
R118	1-216-818-11	METAL CHIP	560	5%	1/10W (GZR9D)
R118	1-218-289-11	METAL CHIP	510	5%	1/10W (GZR8D)
R118	1-220-373-11	METAL CHIP	620	5%	1/10W (GZR7D)
R119	1-216-821-11	METAL CHIP	1K	5%	1/10W
R120	1-216-821-11	METAL CHIP	1K	5%	1/10W
R121	1-216-833-11	METAL CHIP	10K	5%	1/10W
R122	1-216-833-11	METAL CHIP	10K	5%	1/10W
R123	1-216-809-11	METAL CHIP	100	5%	1/10W
R124	1-216-857-11	METAL CHIP	1M	5%	1/10W
R126	1-216-864-11	SHORT CHIP	0 (GZR7D)		
R127	1-216-864-11	SHORT CHIP	0 (GZR8D/GZR9D)		
R130	1-216-809-11	METAL CHIP	100	5%	1/10W
R131	1-216-833-11	METAL CHIP	10K	5%	1/10W
R132	1-216-845-11	METAL CHIP	100K	5%	1/10W
R133	1-216-841-11	METAL CHIP	47K	5%	1/10W
R134	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R135	1-216-824-11	METAL CHIP	1.8K	5%	1/10W
R136	1-216-818-11	METAL CHIP	560	5%	1/10W
R137	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R138	1-216-826-11	METAL CHIP	2.7K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R139	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R140	1-216-849-11	METAL CHIP	220K	5%	1/10W
R141	1-216-813-11	METAL CHIP	220	5%	1/10W
R142	1-216-849-11	METAL CHIP	220K	5%	1/10W
R143	1-216-813-11	METAL CHIP	220	5%	1/10W
R144	1-216-864-11	SHORT CHIP	0		
R150	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R151	1-216-833-11	METAL CHIP	10K	5%	1/10W (GZR7D)
R151	1-216-864-11	SHORT CHIP	0 (GZR8D/GZR9D)		
R152	1-216-833-11	METAL CHIP	10K	5%	1/10W (GZR7D)
R152	1-216-864-11	SHORT CHIP	0 (GZR8D/GZR9D)		
R155	1-216-821-11	METAL CHIP	1K	5%	1/10W
R156	1-216-821-11	METAL CHIP	1K	5%	1/10W
R157	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R158	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R159	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R160	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R161	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R162	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R163	1-216-837-11	METAL CHIP	22K	5%	1/10W
R164	1-216-837-11	METAL CHIP	22K	5%	1/10W
R165	1-216-837-11	METAL CHIP	22K	5%	1/10W
R166	1-216-837-11	METAL CHIP	22K	5%	1/10W
R167	1-216-837-11	METAL CHIP	22K	5%	1/10W
R168	1-216-837-11	METAL CHIP	22K	5%	1/10W
R169	1-216-837-11	METAL CHIP	22K	5%	1/10W
R170	1-216-837-11	METAL CHIP	22K	5%	1/10W
R171	1-216-833-11	METAL CHIP	10K	5%	1/10W
R172	1-216-821-11	METAL CHIP	1K	5%	1/10W
R173	1-216-833-11	METAL CHIP	10K	5%	1/10W
R174	1-216-821-11	METAL CHIP	1K	5%	1/10W
R175	1-216-833-11	METAL CHIP	10K	5%	1/10W
R176	1-216-821-11	METAL CHIP	1K	5%	1/10W
R201	1-216-833-11	METAL CHIP	10K	5%	1/10W (GZR8D/GZR9D)
R202	1-216-833-11	METAL CHIP	10K	5%	1/10W (GZR8D/GZR9D)
R203	1-216-817-11	METAL CHIP	470	5%	1/10W (GZR8D/GZR9D)
R204	1-216-817-11	METAL CHIP	470	5%	1/10W (GZR8D/GZR9D)
R205	1-216-841-11	METAL CHIP	47K	5%	1/10W (GZR8D/GZR9D)
R206	1-216-841-11	METAL CHIP	47K	5%	1/10W (GZR8D/GZR9D)
R207	1-216-825-11	METAL CHIP	2.2K	5%	1/10W (GZR8D/GZR9D)
R208	1-216-825-11	METAL CHIP	2.2K	5%	1/10W (GZR8D/GZR9D)
R209	1-216-825-11	METAL CHIP	2.2K	5%	1/10W (GZR8D/GZR9D)
R209	1-216-864-11	SHORT CHIP	0 (GZR7D)		
R210	1-216-825-11	METAL CHIP	2.2K	5%	1/10W (GZR8D/GZR9D)
R210	1-216-864-11	SHORT CHIP	0 (GZR7D)		
R211	1-216-841-11	METAL CHIP	47K	5%	1/10W (GZR8D/GZR9D)
R212	1-216-841-11	METAL CHIP	47K	5%	1/10W (GZR8D/GZR9D)
R213	1-216-857-11	METAL CHIP	1M	5%	1/10W (GZR8D/GZR9D)
R214	1-216-857-11	METAL CHIP	1M	5%	1/10W (GZR8D/GZR9D)
R215	1-216-833-11	METAL CHIP	10K	5%	1/10W (GZR8D/GZR9D)
R216	1-216-833-11	METAL CHIP	10K	5%	1/10W (GZR8D/GZR9D)
R217	1-216-857-11	METAL CHIP	1M	5%	1/10W (GZR8D/GZR9D)
R218	1-216-864-11	SHORT CHIP	0 (GZR7D)		
R219	1-216-819-11	METAL CHIP	680	5%	1/10W (GZR8D/GZR9D)
R220	1-216-819-11	METAL CHIP	680	5%	1/10W (GZR8D/GZR9D)
R221	1-216-821-11	METAL CHIP	1K	5%	1/10W (GZR8D/GZR9D)
R222	1-216-825-11	METAL CHIP	2.2K	5%	1/10W (GZR8D/GZR9D)
R223	1-216-833-11	METAL CHIP	10K	5%	1/10W
R224	1-216-833-11	METAL CHIP	10K	5%	1/10W
R225	1-216-864-11	SHORT CHIP	0 (GZR7D/GZR8D)		
R226	1-216-864-11	SHORT CHIP	0 (GZR8D)		
R227	1-216-864-11	SHORT CHIP	0 (GZR7D)		
R231	1-216-833-11	METAL CHIP	10K	5%	1/10W
R232	1-216-833-11	METAL CHIP	10K	5%	1/10W
R233	1-216-821-11	METAL CHIP	1K	5%	1/10W (GZR8D/GZR9D)
R234	1-216-821-11	METAL CHIP	1K	5%	1/10W (GZR8D/GZR9D)
R235	1-216-841-11	METAL CHIP	47K	5%	1/10W (GZR8D/GZR9D)
R236	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (GZR8D/GZR9D)
R237	1-216-833-11	METAL CHIP	10K	5%	1/10W (GZR8D/GZR9D)
R238	1-216-825-11	METAL CHIP	2.2K	5%	1/10W (GZR8D/GZR9D)
R239	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (GZR8D/GZR9D)
R240	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (GZR8D/GZR9D)
R241	1-216-833-11	METAL CHIP	10K	5%	1/10W (GZR8D/GZR9D)
R242	1-216-833-11	METAL CHIP	10K	5%	1/10W (GZR8D/GZR9D)
R243	1-216-825-11	METAL CHIP	2.2K	5%	1/10W (GZR8D/GZR9D)
R244	1-216-825-11	METAL CHIP	2.2K	5%	1/10W (GZR8D/GZR9D)
R245	1-216-841-11	METAL CHIP	47K	5%	1/10W (GZR8D/GZR9D)
R246	1-216-841-11	METAL CHIP	47K	5%	1/10W (GZR8D/GZR9D)
R248	1-216-864-11	SHORT CHIP	0 (GZR7D)		
R249	1-216-825-11	METAL CHIP	2.2K	5%	1/10W (GZR8D/GZR9D)
R250	1-216-825-11	METAL CHIP	2.2K	5%	1/10W (GZR8D/GZR9D)
R253	1-216-841-11	METAL CHIP	47K	5%	1/10W (GZR8D/GZR9D)
R254	1-216-841-11	METAL CHIP	47K	5%	1/10W (GZR8D/GZR9D)
R255	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R256	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R257	1-216-853-11	METAL CHIP	470K	5%	1/10W
R258	1-216-853-11	METAL CHIP	470K	5%	1/10W

MAIN

Ref. No.	Part No.	Description				Remark
R259	1-216-853-11	METAL CHIP	470K	5%	1/10W	(GZR8D/GZR9D)
R260	1-216-853-11	METAL CHIP	470K	5%	1/10W	(GZR8D/GZR9D)
R261	1-216-841-11	METAL CHIP	47K	5%	1/10W	
R262	1-216-841-11	METAL CHIP	47K	5%	1/10W	
R263	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	
R264	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	
R265	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	(GZR8D/GZR9D)
R266	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	(GZR8D/GZR9D)
R267	1-216-841-11	METAL CHIP	47K	5%	1/10W	
R268	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
R269	1-216-841-11	METAL CHIP	47K	5%	1/10W	(GZR8D/GZR9D)
R270	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	(GZR8D/GZR9D)
R271	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	(GZR8D/GZR9D)
R272	1-216-841-11	METAL CHIP	47K	5%	1/10W	(GZR8D/GZR9D)
R273	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	(GZR8D/GZR9D)
R274	1-216-841-11	METAL CHIP	47K	5%	1/10W	(GZR8D/GZR9D)
R275	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	(GZR8D/GZR9D)
R276	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	(GZR8D/GZR9D)
R276	1-216-830-11	METAL CHIP	5.6K	5%	1/10W	(GZR7D)
R277	1-216-837-11	METAL CHIP	22K	5%	1/10W	
R278	1-216-837-11	METAL CHIP	22K	5%	1/10W	
R279	1-216-841-11	METAL CHIP	47K	5%	1/10W	
R280	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	
R281	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	
R282	1-216-841-11	METAL CHIP	47K	5%	1/10W	
R283	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
R284	1-216-864-11	SHORT CHIP	0 (GZR7D/GZR8D)			
R285	1-216-864-11	SHORT CHIP	0 (GZR9D)			
R286	1-216-845-11	METAL CHIP	100K	5%	1/10W	
R287	1-216-864-11	SHORT CHIP	0			
R293	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R301	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R302	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R303	1-216-845-11	METAL CHIP	100K	5%	1/10W	
R304	1-216-845-11	METAL CHIP	100K	5%	1/10W	
R305	1-216-864-11	SHORT CHIP	0 (GZR7D/GZR8D)			
R306	1-216-845-11	METAL CHIP	100K	5%	1/10W	(GZR7D/GZR8D)
R307	1-216-864-11	SHORT CHIP	0 (GZR7D/GZR8D)			
R308	1-216-809-11	METAL CHIP	100	5%	1/10W	(GZR7D)
⚠ R311	1-243-563-71	METAL OXIDE	82	5%	2W F	(EXCEPT AUS)
R312	1-216-821-11	METAL CHIP	1K	5%	1/10W	(EXCEPT AUS)
R313	1-216-813-11	METAL CHIP	220	5%	1/10W	(EXCEPT AUS)
R314	1-216-832-11	METAL CHIP	8.2K	5%	1/10W	(EXCEPT AUS)
R315	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	(EXCEPT AUS)
R316	1-216-849-11	METAL CHIP	220K	5%	1/10W	(EXCEPT AUS)
R317	1-216-842-11	METAL CHIP	56K	5%	1/10W	(EXCEPT AUS)
R319	1-216-839-11	METAL CHIP	33K	5%	1/10W	(EXCEPT AUS)
R321	1-216-833-11	METAL CHIP	10K	5%	1/10W	(GZR7D/GZR8D)
R322	1-216-817-11	METAL CHIP	470	5%	1/10W	(GZR7D/GZR8D)
R323	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	(GZR8D)
R323	1-216-830-11	METAL CHIP	5.6K	5%	1/10W	(GZR7D)
R325	1-216-833-11	METAL CHIP	10K	5%	1/10W	(EXCEPT AUS)
R326	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	(EXCEPT AUS)
R327	1-216-821-11	METAL CHIP	1K	5%	1/10W	(EXCEPT AUS)
R328	1-216-809-11	METAL CHIP	100	5%	1/10W	(GZR7D/GZR8D)
R401	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R402	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R403	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R404	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R405	1-216-809-11	METAL CHIP	100	5%	1/10W	
R406	1-216-809-11	METAL CHIP	100	5%	1/10W	
R407	1-216-809-11	METAL CHIP	100	5%	1/10W	
R408	1-216-809-11	METAL CHIP	100	5%	1/10W	
R409	1-216-809-11	METAL CHIP	100	5%	1/10W	
R410	1-216-809-11	METAL CHIP	100	5%	1/10W	
R413	1-216-809-11	METAL CHIP	100	5%	1/10W	
R414	1-216-809-11	METAL CHIP	100	5%	1/10W	
R415	1-216-809-11	METAL CHIP	100	5%	1/10W	
R416	1-216-809-11	METAL CHIP	100	5%	1/10W	
R417	1-216-809-11	METAL CHIP	100	5%	1/10W	
R418	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R419	1-216-809-11	METAL CHIP	100	5%	1/10W	
R420	1-216-809-11	METAL CHIP	100	5%	1/10W	
R421	1-216-809-11	METAL CHIP	100	5%	1/10W	
R422	1-216-809-11	METAL CHIP	100	5%	1/10W	
R423	1-216-809-11	METAL CHIP	100	5%	1/10W	
R424	1-216-809-11	METAL CHIP	100	5%	1/10W	
R425	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R426	1-216-809-11	METAL CHIP	100	5%	1/10W	
R427	1-216-809-11	METAL CHIP	100	5%	1/10W	
R428	1-216-809-11	METAL CHIP	100	5%	1/10W	
R433	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R434	1-216-809-11	METAL CHIP	100	5%	1/10W	
R435	1-216-809-11	METAL CHIP	100	5%	1/10W	
R436	1-216-809-11	METAL CHIP	100	5%	1/10W	
R437	1-216-809-11	METAL CHIP	100	5%	1/10W	
R438	1-216-809-11	METAL CHIP	100	5%	1/10W	
R439	1-216-809-11	METAL CHIP	100	5%	1/10W	
R440	1-216-809-11	METAL CHIP	100	5%	1/10W	
R441	1-216-809-11	METAL CHIP	100	5%	1/10W	
R442	1-216-809-11	METAL CHIP	100	5%	1/10W	
R443	1-216-809-11	METAL CHIP	100	5%	1/10W	
R444	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	
R445	1-216-837-11	METAL CHIP	22K	5%	1/10W	
R446	1-216-841-11	METAL CHIP	47K	5%	1/10W	

Ref. No.	Part No.	Description			Remark
R447	1-216-837-11	METAL CHIP	22K	5%	1/10W
R448	1-216-837-11	METAL CHIP	22K	5%	1/10W
R449	1-216-837-11	METAL CHIP	22K	5%	1/10W
R450	1-216-837-11	METAL CHIP	22K	5%	1/10W
R451	1-216-837-11	METAL CHIP	22K	5%	1/10W
R452	1-216-837-11	METAL CHIP	22K	5%	1/10W
R453	1-216-837-11	METAL CHIP	22K	5%	1/10W
R454	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R455	1-216-833-11	METAL CHIP	10K	5%	1/10W
R456	1-216-849-11	METAL CHIP	220K	5%	1/10W
R457	1-216-827-11	METAL CHIP	3.3K	5%	1/10W (GZR9D)
R457	1-216-834-11	METAL CHIP	12K	5%	1/10W (GZR8D)
R458	1-216-830-11	METAL CHIP	5.6K	5%	1/10W (E2)
R458	1-216-833-11	METAL CHIP	10K	5%	1/10W (PH,SP,TH)
R458	1-216-837-11	METAL CHIP	22K	5%	1/10W (AUS)
R458	1-216-848-11	METAL CHIP	180K	5%	1/10W (E12)
R459	1-216-809-11	METAL CHIP	100	5%	1/10W
R460	1-216-809-11	METAL CHIP	100	5%	1/10W
R461	1-216-809-11	METAL CHIP	100	5%	1/10W
R462	1-216-821-11	METAL CHIP	1K	5%	1/10W
R463	1-216-821-11	METAL CHIP	1K	5%	1/10W
R464	1-216-821-11	METAL CHIP	1K	5%	1/10W
R465	1-216-821-11	METAL CHIP	1K	5%	1/10W
R466	1-216-809-11	METAL CHIP	100	5%	1/10W
R467	1-216-809-11	METAL CHIP	100	5%	1/10W
R468	1-216-809-11	METAL CHIP	100	5%	1/10W
R469	1-216-809-11	METAL CHIP	100	5%	1/10W
R470	1-216-809-11	METAL CHIP	100	5%	1/10W
R471	1-216-809-11	METAL CHIP	100	5%	1/10W (GZR8D/GZR9D)
R472	1-216-809-11	METAL CHIP	100	5%	1/10W
R473	1-216-809-11	METAL CHIP	100	5%	1/10W
R474	1-216-809-11	METAL CHIP	100	5%	1/10W
R475	1-216-809-11	METAL CHIP	100	5%	1/10W (GZR8D/GZR9D)
R476	1-216-809-11	METAL CHIP	100	5%	1/10W
R477	1-216-809-11	METAL CHIP	100	5%	1/10W
R478	1-216-809-11	METAL CHIP	100	5%	1/10W
R479	1-216-809-11	METAL CHIP	100	5%	1/10W
R480	1-216-809-11	METAL CHIP	100	5%	1/10W
R481	1-216-809-11	METAL CHIP	100	5%	1/10W
R482	1-216-809-11	METAL CHIP	100	5%	1/10W
R483	1-216-809-11	METAL CHIP	100	5%	1/10W
R484	1-216-809-11	METAL CHIP	100	5%	1/10W
R485	1-216-809-11	METAL CHIP	100	5%	1/10W
R486	1-216-841-11	METAL CHIP	47K	5%	1/10W
R487	1-216-841-11	METAL CHIP	47K	5%	1/10W
R488	1-216-848-11	METAL CHIP	180K	5%	1/10W (E12)
R489	1-216-809-11	METAL CHIP	100	5%	1/10W
R490	1-216-845-11	METAL CHIP	100K	5%	1/10W
R491	1-216-845-11	METAL CHIP	100K	5%	1/10W
R501	1-216-809-11	METAL CHIP	100	5%	1/10W
R502	1-216-809-11	METAL CHIP	100	5%	1/10W
R503	1-216-809-11	METAL CHIP	100	5%	1/10W
R504	1-216-809-11	METAL CHIP	100	5%	1/10W
R505	1-216-821-11	METAL CHIP	1K	5%	1/10W
R506	1-216-821-11	METAL CHIP	1K	5%	1/10W
R509	1-216-809-11	METAL CHIP	100	5%	1/10W
R510	1-216-809-11	METAL CHIP	100	5%	1/10W
R511	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (E2)
R512	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (E2)
R513	1-216-809-11	METAL CHIP	100	5%	1/10W
R514	1-216-809-11	METAL CHIP	100	5%	1/10W
R515	1-216-809-11	METAL CHIP	100	5%	1/10W
R516	1-216-809-11	METAL CHIP	100	5%	1/10W
R517	1-216-809-11	METAL CHIP	100	5%	1/10W
R518	1-216-864-11	SHORT CHIP	0		
R551	1-216-809-11	METAL CHIP	100	5%	1/10W
R552	1-216-809-11	METAL CHIP	100	5%	1/10W
R553	1-216-837-11	METAL CHIP	22K	5%	1/10W
R554	1-216-841-11	METAL CHIP	47K	5%	1/10W
R555	1-216-841-11	METAL CHIP	47K	5%	1/10W
R556	1-216-845-11	METAL CHIP	100K	5%	1/10W
R558	1-216-837-11	METAL CHIP	22K	5%	1/10W
R559	1-216-841-11	METAL CHIP	47K	5%	1/10W
R560	1-216-837-11	METAL CHIP	22K	5%	1/10W
R561	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R562	1-216-841-11	METAL CHIP	47K	5%	1/10W
R563	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R564	1-216-845-11	METAL CHIP	100K	5%	1/10W
R601	1-216-801-11	METAL CHIP	22	5%	1/10W
R602	1-216-801-11	METAL CHIP	22	5%	1/10W
R603	1-216-837-11	METAL CHIP	22K	5%	1/10W
R604	1-216-849-11	METAL CHIP	220K	5%	1/10W
R605	1-216-837-11	METAL CHIP	22K	5%	1/10W
R606	1-216-849-11	METAL CHIP	220K	5%	1/10W
R607	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R608	1-216-845-11	METAL CHIP	100K	5%	1/10W
R609	1-216-833-11	METAL CHIP	10K	5%	1/10W
R610	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R611	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R612	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R613	1-216-841-11	METAL CHIP	47K	5%	1/10W
R614	1-216-796-11	METAL CHIP	8.2	5%	1/10W (GZR8D/GZR9D)
R615	1-216-796-11	METAL CHIP	8.2	5%	1/10W (GZR8D/GZR9D)
R616	1-216-837-11	METAL CHIP	22K	5%	1/10W (GZR8D/GZR9D)
R617	1-216-855-11	METAL CHIP	680K	5%	1/10W (GZR8D/GZR9D)
R618	1-216-837-11	METAL CHIP	22K	5%	1/10W (GZR8D/GZR9D)
R619	1-216-849-11	METAL CHIP	220K	5%	1/10W (GZR8D/GZR9D)
⚠ R620	1-243-681-71	METAL OXIDE	33	5%	1W F (GZR8D/GZR9D)
R622	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (GZR8D/GZR9D)
R623	1-216-825-11	METAL CHIP	2.2K	5%	1/10W (GZR8D/GZR9D)
R624	1-216-833-11	METAL CHIP	10K	5%	1/10W (GZR8D/GZR9D)
R625	1-216-825-11	METAL CHIP	2.2K	5%	1/10W (GZR8D/GZR9D)

MAIN **MIC**

Ref. No.	Part No.	Description			Remark
R626	1-216-825-11	METAL CHIP	2.2K	5%	1/10W (GZR8D/GZR9D)
R627	1-216-821-11	METAL CHIP	1K	5%	1/10W (GZR8D/GZR9D)
R628	1-216-837-11	METAL CHIP	22K	5%	1/10W (GZR8D:E12,PH,SP,TH/GZR9D)
R629	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R631	1-216-821-11	METAL CHIP	1K	5%	1/10W
⚠ R632	1-243-681-71	METAL OXIDE	33	5%	1W F
R633	1-216-821-11	METAL CHIP	1K	5%	1/10W
R634	1-216-809-11	METAL CHIP	100	5%	1/10W
R635	1-216-809-11	METAL CHIP	100	5%	1/10W
R636	1-216-821-11	METAL CHIP	1K	5%	1/10W
R637	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R638	1-216-833-11	METAL CHIP	10K	5%	1/10W
R639	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R640	1-216-821-11	METAL CHIP	1K	5%	1/10W
R701	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R703	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R704	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R705	1-216-837-11	METAL CHIP	22K	5%	1/10W
R706	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R708	1-216-837-11	METAL CHIP	22K	5%	1/10W
R709	1-216-809-11	METAL CHIP	100	5%	1/10W
R710	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R711	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R712	1-216-833-11	METAL CHIP	10K	5%	1/10W
R713	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R714	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R715	1-216-841-11	METAL CHIP	47K	5%	1/10W
R716	1-216-841-11	METAL CHIP	47K	5%	1/10W
R717	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R718	1-216-832-11	METAL CHIP	8.2K	5%	1/10W
R719	1-216-845-11	METAL CHIP	100K	5%	1/10W
R720	1-216-821-11	METAL CHIP	1K	5%	1/10W
R721	1-216-845-11	METAL CHIP	100K	5%	1/10W
R722	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R723	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R724	1-216-841-11	METAL CHIP	47K	5%	1/10W
R725	1-216-837-11	METAL CHIP	22K	5%	1/10W
R726	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R727	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R728	1-216-864-11	SHORT CHIP	0		
R729	1-216-864-11	SHORT CHIP	0		
R730	1-216-864-11	SHORT CHIP	0		
R1201	1-216-864-11	SHORT CHIP	0 (EXCEPT AUS)		
R1202	1-216-864-11	SHORT CHIP	0 (EXCEPT AUS)		
R1214	1-216-295-11	SHORT CHIP	0 (GZR7D:E3,E15/GZR9D:E2)		
R1214	1-216-864-11	SHORT CHIP	0 (GZR7D:E12,PH,SP,TH/ GZR8D/GZR9D:E3,E15,PH,SP)		
R1215	1-216-295-11	SHORT CHIP	0 (GZR7D:E3,E15/GZR9D:E2)		
R1215	1-216-864-11	SHORT CHIP	0 (GZR7D:E12,PH,SP,TH/ GZR8D/GZR9D:E3,E15,PH,SP)		
		< VIBRATOR >			
X401	1-795-950-11	VIBRATOR, CRYSTAL (32.768kHz)			
X402	1-795-721-21	VIBRATOR, CERAMIC (20MHz)			

****

Ref. No.	Part No.	Description			Remark
		MIC BOARD			
		**********			
		< CAPACITOR >			
C851	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C852	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C853	1-126-160-11	ELECT	1uF	20%	50V
C854	1-126-160-11	ELECT	1uF	20%	50V
C855	1-124-259-11	ELECT	4.7uF	20%	50V
C856	1-124-589-11	ELECT	47uF	20%	16V
C857	1-124-589-11	ELECT	47uF	20%	16V
C858	1-162-925-11	CERAMIC CHIP	68PF	5%	50V
C859	1-126-160-11	ELECT	1uF	20%	50V
C860	1-126-160-11	ELECT	1uF	20%	50V
C861	1-124-259-11	ELECT	4.7uF	20%	50V
C862	1-124-259-11	ELECT	4.7uF	20%	50V
C863	1-164-670-11	CERAMIC CHIP	0.0012uF	5%	16V
C864	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C866	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C867	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C868	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C869	1-119-772-11	ELECT	47uF	20%	35V
C870	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C875	1-124-234-00	ELECT	22uF	20%	16V
C878	1-126-160-11	ELECT	1uF	20%	50V
C879	1-164-392-11	CERAMIC CHIP	390PF	5%	50V
C880	1-124-463-00	ELECT	0.1uF	20%	50V
C881	1-126-176-11	ELECT	220uF	20%	10V
C882	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C885	1-164-357-11	CERAMIC CHIP	0.001uF	5%	50V
C886	1-124-259-11	ELECT	4.7uF	20%	50V
C887	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C888	1-126-157-11	ELECT	10uF	20%	16V
C889	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C891	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C892	1-164-156-11	CERAMIC CHIP	0.1uF		25V
		< CABLE HOLDER >			
CN851	1-820-830-11	HOLDER, CABLE 6P			
		< DIODE >			
D851	8-719-069-54	DIODE UDZSNPTE-175.1B			
		< IC >			
IC851	6-709-116-01	IC TC9488FG			
IC852	8-759-278-58	IC NJM4558V-TE2			
		< JACK >			
J851	1-817-630-11	JACK (LARGE TYPE) (MIC 1)			
J852	1-817-630-11	JACK (LARGE TYPE) (MIC 2)			
		< JUMPER RESISTOR >			
JR801	1-216-864-11	SHORT CHIP	0		
JR802	1-216-864-11	SHORT CHIP	0		
JR803	1-216-864-11	SHORT CHIP	0		
JR804	1-216-864-11	SHORT CHIP	0		
JR805	1-216-864-11	SHORT CHIP	0		
JR806	1-216-864-11	SHORT CHIP	0		
JR807	1-216-864-11	SHORT CHIP	0		

Ref. No.	Part No.	Description			Remark
JR809	1-216-864-11	SHORT CHIP	0		
JR811	1-216-864-11	SHORT CHIP	0		
JR814	1-216-864-11	SHORT CHIP	0		
JR815	1-216-864-11	SHORT CHIP	0		
JR816	1-216-864-11	SHORT CHIP	0		
		< RESISTOR >			
R851	1-216-833-11	METAL CHIP	10K	5%	1/10W
R852	1-216-833-11	METAL CHIP	10K	5%	1/10W
R853	1-216-821-11	METAL CHIP	1K	5%	1/10W
R854	1-216-821-11	METAL CHIP	1K	5%	1/10W
R855	1-216-833-11	METAL CHIP	10K	5%	1/10W
R856	1-216-833-11	METAL CHIP	10K	5%	1/10W
R858	1-216-833-11	METAL CHIP	10K	5%	1/10W
R859	1-216-833-11	METAL CHIP	10K	5%	1/10W
R860	1-216-821-11	METAL CHIP	1K	5%	1/10W
R861	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R862	1-216-809-11	METAL CHIP	100	5%	1/10W
R863	1-216-809-11	METAL CHIP	100	5%	1/10W
R864	1-216-809-11	METAL CHIP	100	5%	1/10W
R865	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R867	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R868	1-216-834-11	METAL CHIP	12K	5%	1/10W
R869	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R870	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R871	1-216-835-11	METAL CHIP	15K	5%	1/10W
R872	1-216-815-11	METAL CHIP	330	5%	1/10W
R873	1-216-815-11	METAL CHIP	330	5%	1/10W
R880	1-216-833-11	METAL CHIP	10K	5%	1/10W
R881	1-216-845-11	METAL CHIP	100K	5%	1/10W
R882	1-216-833-11	METAL CHIP	10K	5%	1/10W
R883	1-216-841-11	METAL CHIP	47K	5%	1/10W
R884	1-216-835-11	METAL CHIP	15K	5%	1/10W
R885	1-216-837-11	METAL CHIP	22K	5%	1/10W
R886	1-216-864-11	SHORT CHIP	0		
R887	1-216-845-11	METAL CHIP	100K	5%	1/10W
R888	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R889	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R890	1-216-864-11	SHORT CHIP	0		
R891	1-216-833-11	METAL CHIP	10K	5%	1/10W
R892	1-216-833-11	METAL CHIP	10K	5%	1/10W
R893	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R894	1-216-833-11	METAL CHIP	10K	5%	1/10W
R895	1-216-838-11	METAL CHIP	27K	5%	1/10W
		< VARIABLE RESISTOR >			
RV851	1-223-983-21	RES, VAR, CARBON 50K (MIC 1 LEVEL)			
RV852	1-223-983-21	RES, VAR, CARBON 50K (MIC 2 LEVEL)			
RV853	1-223-983-21	RES, VAR, CARBON 50K (ECHO LEVEL)			
**********					
	1-687-133-12	MOTOR (LD) BOARD			
		**********			
**********					
	1-687-134-12	MOTOR (TB) BOARD			
		**********			
		< CONNECTOR >			
CN742	1-784-727-11	CONNECTOR, FFC 5P			
**********					

Ref. No.	Part No.	Description			Remark
	A-1488-020-A	PANEL BOARD, COMPLETE (GZR9D)			
	A-1493-105-A	PANEL BOARD, COMPLETE (GZR7D/GZR8D)			
		**********			
		< CAPACITOR >			
C601	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C701	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C702	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C703	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C704	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C705	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C706	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C707	1-126-947-11	ELECT	47uF	20%	35V
C708	1-165-621-11	CERAMIC CHIP	0.1uF		50V
C709	1-128-131-11	ELECT	22uF	20%	50V
C731	1-124-257-00	ELECT	2.2uF	20%	50V
C732	1-124-257-00	ELECT	2.2uF	20%	50V
		< CONNECTOR >			
CN601	1-568-844-11	CONNECTOR, FFC 29P			
CN606	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P			
CN607	1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P (GZR9D)			
* CN608	1-562-534-11	SOCKET, CONNECTOR 3P (GZR7D/GZR8D)			
		< DIODE >			
D601	6-501-451-01	LED 1L4344B22COCDT02 (POWER ILLUMINATOR)			
D602	6-501-451-01	LED 1L4344B22COCDT02 (POWER ILLUMINATOR)			
D603	6-501-451-01	LED 1L4344B22COCDT02 (POWER ILLUMINATOR)			
D604	6-501-451-01	LED 1L4344B22COCDT02 (POWER ILLUMINATOR)			
D605	6-501-451-01	LED 1L4344B22COCDT02 (POWER ILLUMINATOR)			
D606	6-501-451-01	LED 1L4344B22COCDT02 (POWER ILLUMINATOR)			
		< FLUORESCENT INDICATOR TUBE >			
FL701	1-483-001-11	INDICATOR TUBE, FLUORESCENT			
		< IC >			
IC601	6-711-556-01	IC NJL24H400B-SA (IR)			
IC701	6-709-115-11	IC NJU3427FH2			
		< JUMPER RESISTOR >			
JR601	1-216-864-11	SHORT CHIP	0		
		< TRANSISTOR >			
Q601	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF			
Q602	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF			
Q603	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF			
Q604	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF			
Q605	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF			
Q606	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF			
Q607	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF (GZR9D)			
Q608	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF			
Q609	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF			
Q701	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF			
Q702	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF			

PANEL

Ref. No.	Part No.	Description			Remark
Q703	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF			
Q704	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF			
Q705	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF			
Q706	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF			
Q707	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF			
Q708	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF			
Q709	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF			
Q710	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF			
Q711	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF			
Q712	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF			
Q713	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF			
Q714	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF			
Q720	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF			
Q721	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF			
		< RESISTOR >			
R601	1-216-813-11	METAL CHIP	220	5%	1/10W
R611	1-216-821-11	METAL CHIP	1K	5%	1/10W
R612	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R613	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R614	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R616	1-216-833-11	METAL CHIP	10K	5%	1/10W
R619	1-216-833-11	METAL CHIP	10K	5%	1/10W
R621	1-216-821-11	METAL CHIP	1K	5%	1/10W
R622	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R623	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R624	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R625	1-216-833-11	METAL CHIP	10K	5%	1/10W
R626	1-216-837-11	METAL CHIP	22K	5%	1/10W
R656	1-216-809-11	METAL CHIP	100	5%	1/10W
R657	1-216-821-11	METAL CHIP	1K	5%	1/10W
R661	1-216-819-11	METAL CHIP	680	5%	1/10W
R662	1-216-819-11	METAL CHIP	680	5%	1/10W
R663	1-216-819-11	METAL CHIP	680	5%	1/10W
R664	1-216-819-11	METAL CHIP	680	5%	1/10W
R665	1-216-819-11	METAL CHIP	680	5%	1/10W
R666	1-216-819-11	METAL CHIP	680	5%	1/10W
R671	1-216-819-11	METAL CHIP	680	5%	1/10W
R672	1-216-819-11	METAL CHIP	680	5%	1/10W
R673	1-216-819-11	METAL CHIP	680	5%	1/10W
R674	1-216-819-11	METAL CHIP	680	5%	1/10W
R675	1-216-819-11	METAL CHIP	680	5%	1/10W
R676	1-216-819-11	METAL CHIP	680	5%	1/10W
R681	1-216-833-11	METAL CHIP	10K	5%	1/10W
R682	1-216-833-11	METAL CHIP	10K	5%	1/10W
R683	1-216-833-11	METAL CHIP	10K	5%	1/10W
R684	1-216-833-11	METAL CHIP	10K	5%	1/10W
R685	1-216-833-11	METAL CHIP	10K	5%	1/10W
R686	1-216-833-11	METAL CHIP	10K	5%	1/10W
R687	1-216-833-11	METAL CHIP	10K	5%	1/10W (GZR9D)
R701	1-216-817-11	METAL CHIP	470	5%	1/10W
R702	1-216-817-11	METAL CHIP	470	5%	1/10W
R703	1-216-817-11	METAL CHIP	470	5%	1/10W
R704	1-216-817-11	METAL CHIP	470	5%	1/10W
R705	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R711	1-216-841-11	METAL CHIP	47K	5%	1/10W
R712	1-216-841-11	METAL CHIP	47K	5%	1/10W
R713	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R714	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R715	1-216-801-11	METAL CHIP	22	5%	1/10W

Ref. No.	Part No.	Description			Remark
R716	1-216-801-11	METAL CHIP	22	5%	1/10W
R721	1-216-841-11	METAL CHIP	47K	5%	1/10W
R722	1-216-841-11	METAL CHIP	47K	5%	1/10W
R723	1-216-841-11	METAL CHIP	47K	5%	1/10W
R724	1-216-841-11	METAL CHIP	47K	5%	1/10W
R725	1-216-841-11	METAL CHIP	47K	5%	1/10W
R726	1-216-841-11	METAL CHIP	47K	5%	1/10W
R727	1-216-841-11	METAL CHIP	47K	5%	1/10W
R728	1-216-841-11	METAL CHIP	47K	5%	1/10W
R729	1-216-841-11	METAL CHIP	47K	5%	1/10W
R730	1-216-841-11	METAL CHIP	47K	5%	1/10W
R731	1-216-841-11	METAL CHIP	47K	5%	1/10W
R732	1-216-841-11	METAL CHIP	47K	5%	1/10W
R733	1-216-841-11	METAL CHIP	47K	5%	1/10W
R734	1-216-841-11	METAL CHIP	47K	5%	1/10W
R741	1-216-841-11	METAL CHIP	47K	5%	1/10W
R742	1-216-841-11	METAL CHIP	47K	5%	1/10W
R743	1-216-841-11	METAL CHIP	47K	5%	1/10W
R744	1-216-841-11	METAL CHIP	47K	5%	1/10W
R745	1-216-841-11	METAL CHIP	47K	5%	1/10W
R746	1-216-841-11	METAL CHIP	47K	5%	1/10W
R747	1-216-841-11	METAL CHIP	47K	5%	1/10W
R748	1-216-841-11	METAL CHIP	47K	5%	1/10W
R749	1-216-841-11	METAL CHIP	47K	5%	1/10W
R750	1-216-841-11	METAL CHIP	47K	5%	1/10W
R751	1-216-841-11	METAL CHIP	47K	5%	1/10W
R752	1-216-841-11	METAL CHIP	47K	5%	1/10W
R753	1-216-841-11	METAL CHIP	47K	5%	1/10W
R754	1-216-841-11	METAL CHIP	47K	5%	1/10W
R755	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R756	1-216-833-11	METAL CHIP	10K	5%	1/10W
R757	1-216-833-11	METAL CHIP	10K	5%	1/10W
R758	1-216-833-11	METAL CHIP	10K	5%	1/10W
R759	1-216-837-11	METAL CHIP	22K	5%	1/10W
R760	1-216-845-11	METAL CHIP	100K	5%	1/10W
R761	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R762	1-216-821-11	METAL CHIP	1K	5%	1/10W
R763	1-216-809-11	METAL CHIP	100	5%	1/10W
R764	1-216-821-11	METAL CHIP	1K	5%	1/10W
R765	1-216-811-11	METAL CHIP	150	5%	1/10W
R766	1-216-821-11	METAL CHIP	1K	5%	1/10W
		< SWITCH >			
S601	1-771-410-21	SWITCH, TACTILE (DISPLAY)			
S611	1-771-410-21	SWITCH, TACTILE (ILLUMINATION)			
S612	1-771-410-21	SWITCH, TACTILE (PRESET EQ)			
S613	1-771-410-21	SWITCH, TACTILE (GROOVE)			
S614	1-771-410-21	SWITCH, TACTILE (EQ BAND/MEMORY)			
S621	1-771-410-21	SWITCH, TACTILE (ENTER)			
S622	1-771-410-21	SWITCH, TACTILE (SOUND FIELD)			
S623	1-771-410-21	SWITCH, TACTILE (◀▶)			
S624	1-771-410-21	SWITCH, TACTILE (❚❚)			
S625	1-771-410-21	SWITCH, TACTILE (■)			
S626	1-771-410-21	SWITCH, TACTILE (▶▶ ❚► TUNING +)			
S627	1-771-410-21	SWITCH, TACTILE (◄❚ ◀◀ TUNING –)			
		< CABLE HOLDER >			
WH604	1-824-029-21	HOLDER, CABLE 4P			
WH605	1-824-027-21	HOLDER, CABLE 3P			

****

REGULATOR **SENSOR** **SP-TERMINAL** **SP TERM(SURR,CENT,SW)**

Ref. No.	Part No.	Description			Remark
		REGULATOR BOARD			
		**********			
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3			
		< CAPACITOR >			
C011	1-115-870-11	ELECT	0.47uF	20%	50V
C012	1-126-795-11	ELECT	10uF	20%	50V
C071	1-115-870-11	ELECT	0.47uF	20%	50V
C072	1-128-126-11	ELECT	100uF	20%	25V
C073	1-115-870-11	ELECT	0.47uF	20%	50V
C074	1-128-126-11	ELECT	100uF	20%	25V
C075	1-115-870-11	ELECT	0.47uF	20%	50V
C076	1-128-126-11	ELECT	100uF	20%	25V
C077	1-126-959-11	ELECT	0.47uF	20%	50V
C078	1-104-665-11	ELECT	100uF	20%	25V
C079	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
		< CONNECTOR >			
* CN071	1-770-732-11	CONNECTOR, BOARD TO BOARD 15P			
* CN073	1-564-517-11	PLUG, CONNECTOR 2P			
		< IC >			
IC003	6-710-643-01	IC BA00BC0WCP-V5E2			
IC071	6-710-643-01	IC BA00BC0WCP-V5E2			
IC072	6-710-643-01	IC BA00BC0WCP-V5E2			
IC073	6-710-643-01	IC BA00BC0WCP-V5E2			
IC075	8-759-700-07	IC NJM2903M			
IC076	6-710-642-01	IC SI-3010KFE			
		< RESISTOR >			
R017	1-216-843-11	METAL CHIP	68K	5%	1/10W
R018	1-216-833-11	METAL CHIP	10K	5%	1/10W
R019	1-216-841-11	METAL CHIP	47K	5%	1/10W
R020	1-216-821-11	METAL CHIP	1K	5%	1/10W
R021	1-216-821-11	METAL CHIP	1K	5%	1/10W
R061	1-216-839-11	METAL CHIP	33K	5%	1/10W
R062	1-216-841-11	METAL CHIP	47K	5%	1/10W
R063	1-216-833-11	METAL CHIP	10K	5%	1/10W
R064	1-216-821-11	METAL CHIP	1K	5%	1/10W
R065	1-216-841-11	METAL CHIP	47K	5%	1/10W
R066	1-216-845-11	METAL CHIP	100K	5%	1/10W
R067	1-216-841-11	METAL CHIP	47K	5%	1/10W
R070	1-216-864-11	SHORT CHIP	0		
R071	1-216-845-11	METAL CHIP	100K	5%	1/10W
R072	1-216-841-11	METAL CHIP	47K	5%	1/10W
R073	1-216-841-11	METAL CHIP	47K	5%	1/10W
R075	1-216-864-11	SHORT CHIP	0		
R076	1-216-845-11	METAL CHIP	100K	5%	1/10W
R077	1-216-841-11	METAL CHIP	47K	5%	1/10W
R078	1-216-841-11	METAL CHIP	47K	5%	1/10W
R080	1-216-815-11	METAL CHIP	330	5%	1/10W
R082	1-216-832-11	METAL CHIP	8.2K	5%	1/10W
R084	1-216-833-11	METAL CHIP	10K	5%	1/10W
R086	1-216-809-11	METAL CHIP	100	5%	1/10W
R088	1-218-446-11	METAL CHIP	1	5%	1/10W
R090	1-218-446-11	METAL CHIP	1	5%	1/10W
R092	1-218-446-11	METAL CHIP	1	5%	1/10W
R094	1-218-446-11	METAL CHIP	1	5%	1/10W
R096	1-218-446-11	METAL CHIP	1	5%	1/10W
R098	1-218-446-11	METAL CHIP	1	5%	1/10W
R0100	1-218-446-11	METAL CHIP	1	5%	1/10W
R102	1-218-446-11	METAL CHIP	1	5%	1/10W
R104	1-218-446-11	METAL CHIP	1	5%	1/10W
R106	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
	1-687-132-12	SENSOR BOARD			
		**********			
		< CONNECTOR >			
CN731	1-785-329-21	PIN, CONNECTOR (LIGHT ANGLE) 3P			
		< IC >			
IC731	6-600-564-01	IC RPI-579N1			
		SP-TERMINAL BOARD			
		**********			
		< CONNECTOR >			
CN447	1-691-770-11	PLUG (MICRO CONNECTOR) 8P			
		< TERMINAL BOARD >			
JK402	1-694-785-11	TERMINAL BOARD (4P) (FRONT SPEAKER)			
		< COIL >			
L445	1-422-009-13	COIL, AIR-CORE			
L446	1-422-009-13	COIL, AIR-CORE			
		< RESISTOR >			
R478	1-216-797-11	METAL CHIP	10	5%	1/10W
R479	1-216-797-11	METAL CHIP	10	5%	1/10W
R480	1-216-797-11	METAL CHIP	10	5%	1/10W
R481	1-216-797-11	METAL CHIP	10	5%	1/10W
R482	1-216-797-11	METAL CHIP	10	5%	1/10W
R483	1-216-797-11	METAL CHIP	10	5%	1/10W
R486	1-216-797-11	METAL CHIP	10	5%	1/10W
R489	1-216-797-11	METAL CHIP	10	5%	1/10W
		SP TERM(SURR,CENT,SW) BOARD			
		(GZR8D/GZR9D)			
		**********			
		< CONNECTOR >			
CN448	1-564-507-11	PLUG, CONNECTOR 4P (GZR9D)			
CN544	1-564-509-11	PLUG, CONNECTOR 6P			
		< TERMINAL BOARD >			
JK401	1-780-635-11	TERMINAL BOARD (2P) (SUBWOOFER) (GZR9D)			
JK501	1-780-636-11	TERMINAL BOARD (6P) (SURROUND SPEAKER L/R,CENTER SPEAKER)			
		< COIL >			
L443	1-422-009-13	COIL, AIR-CORE (GZR9D)			
L541	1-422-009-13	COIL, AIR-CORE			
L542	1-422-009-13	COIL, AIR-CORE			
L543	1-422-009-13	COIL, AIR-CORE			

SP TERM(SURR,CENT,SW) **SUB-TRANS** **SURR & CENT AMP**

Ref. No.	Part No.	Description			Remark
		< RESISTOR >			
R484	1-216-797-11	METAL CHIP	10	5%	1/10W (GZR9D)
R485	1-216-797-11	METAL CHIP	10	5%	1/10W (GZR9D)
R487	1-216-797-11	METAL CHIP	10	5%	1/10W (GZR9D)
R488	1-216-797-11	METAL CHIP	10	5%	1/10W (GZR9D)
R545	1-216-797-11	METAL CHIP	10	5%	1/10W
R546	1-216-797-11	METAL CHIP	10	5%	1/10W
R547	1-216-797-11	METAL CHIP	10	5%	1/10W
R548	1-216-797-11	METAL CHIP	10	5%	1/10W
R549	1-216-797-11	METAL CHIP	10	5%	1/10W
R550	1-216-797-11	METAL CHIP	10	5%	1/10W
R551	1-216-797-11	METAL CHIP	10	5%	1/10W
R552	1-216-797-11	METAL CHIP	10	5%	1/10W
R560	1-216-797-11	METAL CHIP	10	5%	1/10W
R564	1-216-797-11	METAL CHIP	10	5%	1/10W
R570	1-216-797-11	METAL CHIP	10	5%	1/10W
R571	1-216-797-11	METAL CHIP	10	5%	1/10W
**********					
		SUB-TRANS BOARD			
		**********			
		< CONNECTOR >			
* CN901	1-695-044-11	PIN, CONNECTOR (3.96mm PITCH) 2P			
CN911	1-564-507-11	PLUG, CONNECTOR 4P			
		< DIODE >			
D901	6-501-817-01	DIODE MA2J1110GLS0			
		< TRANSFORMER >			
⚠ PT902	1-445-413-11	TRANSFORMER, POWER (SUB)			
		< RESISTOR >			
R910	1-216-801-11	METAL CHIP	22	5%	1/10W
		< RELAY >			
⚠ RY901	1-755-334-11	RELAY, AC POWER			
		< SWITCH >			
⚠ S901	1-786-055-31	SELECTOR, VOLTAGE (VOLTAGE SELECTOR) (EXCEPT AUS)			
**********					
	A-1488-059-A	SURR & CENT AMP BOARD, COMPLETE (GZR9D)			
	A-1550-916-A	SURR & CENT AMP BOARD, COMPLETE (GZR8D)			
		**********			
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3			
		< CAPACITOR >			
C501	1-136-497-81	FILM	0.1uF	5%	50V
C502	1-136-497-81	FILM	0.1uF	5%	50V
C503	1-135-515-21	ELECT	3300uF	20%	50V
C504	1-135-515-21	ELECT	3300uF	20%	50V
C505	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C511	1-126-964-11	ELECT	10uF	20%	50V

Ref. No.	Part No.	Description			Remark
C512	1-126-964-11	ELECT	10uF	20%	50V
C517	1-126-967-11	ELECT	47uF	20%	50V
C518	1-126-967-11	ELECT	47uF	20%	50V
C519	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C520	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C521	1-126-964-11	ELECT	10uF	20%	50V
C522	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C523	1-126-967-11	ELECT	47uF	20%	50V
C526	1-126-967-11	ELECT	47uF	20%	50V
C527	1-126-967-11	ELECT	47uF	20%	50V
C528	1-126-965-11	ELECT	22uF	20%	50V
C529	1-104-658-11	ELECT	100uF	20%	10V
C531	1-136-497-81	FILM	0.1uF	5%	50V
C532	1-136-497-81	FILM	0.1uF	5%	50V
C533	1-136-497-81	FILM	0.1uF	5%	50V
C534	1-136-497-81	FILM	0.1uF	5%	50V
C535	1-136-497-81	FILM	0.1uF	5%	50V
C536	1-136-497-81	FILM	0.1uF	5%	50V
C544	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C547	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C589	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
		< CONNECTOR >			
CN541	1-778-982-21	CONNECTOR, BOARD TO BOARD 13P			
		< DIODE >			
D501	6-500-360-01	DIODE D10XB20			
D503	6-501-817-01	DIODE MA2J1110GLS0			
D505	6-501-817-01	DIODE MA2J1110GLS0			
D506	6-501-817-01	DIODE MA2J1110GLS0			
D508	6-501-817-01	DIODE MA2J1110GLS0			
D541	6-500-334-01	DIODE MC2836-T112-1			
		< IC >			
IC501	6-600-673-01	IC STK433-260A-E			
		< TRANSISTOR >			
Q501	6-551-696-01	TRANSISTOR ISA1235AC1TP-1EF			
Q504	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF			
Q505	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF			
Q506	6-551-268-01	TRANSISTOR 2SC5625			
Q507	6-551-268-01	TRANSISTOR 2SC5625			
Q508	6-551-268-01	TRANSISTOR 2SC5625			
Q509	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF			
		< RESISTOR >			
R501	1-216-845-11	METAL CHIP	100K	5%	1/10W
R502	1-216-845-11	METAL CHIP	100K	5%	1/10W
R503	1-216-806-11	METAL CHIP	56	5%	1/10W
R504	1-216-806-11	METAL CHIP	56	5%	1/10W
R505	1-216-806-11	METAL CHIP	56	5%	1/10W
R506	1-216-806-11	METAL CHIP	56	5%	1/10W
R507	1-216-833-11	METAL CHIP	10K	5%	1/10W
R508	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
⚠ R509	1-220-893-11	METAL	0.22	10%	5W F
⚠ R510	1-220-893-11	METAL	0.22	10%	5W F
R511	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R512	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R513	1-216-841-11	METAL CHIP	47K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R514	1-216-841-11	METAL CHIP	47K	5%	1/10W
R515	1-216-841-11	METAL CHIP	47K	5%	1/10W
R516	1-216-841-11	METAL CHIP	47K	5%	1/10W
R517	1-218-289-11	METAL CHIP	510	5%	1/10W (GZR9D)
R517	1-220-373-11	METAL CHIP	620	5%	1/10W (GZR8D)
R518	1-218-289-11	METAL CHIP	510	5%	1/10W (GZR9D)
R518	1-220-373-11	METAL CHIP	620	5%	1/10W (GZR8D)
R519	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
⚠ R520	1-220-893-11	METAL	0.22	10%	5W F
R521	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R522	1-216-841-11	METAL CHIP	47K	5%	1/10W
R523	1-216-819-11	METAL CHIP	680	5%	1/10W (GZR9D)
R523	1-218-484-11	METAL CHIP	750	5%	1/10W (GZR8D)
R524	1-216-841-11	METAL CHIP	47K	5%	1/10W
R525	1-216-821-11	METAL CHIP	1K	5%	1/10W
R527	1-216-839-11	METAL CHIP	33K	5%	1/10W
R528	1-216-845-11	METAL CHIP	100K	5%	1/10W
R535	1-216-842-11	METAL CHIP	56K	5%	1/10W
R536	1-216-841-11	METAL CHIP	47K	5%	1/10W
R537	1-216-841-11	METAL CHIP	47K	5%	1/10W
R539	1-216-797-11	METAL CHIP	10	5%	1/10W
R540	1-216-797-11	METAL CHIP	10	5%	1/10W
R541	1-216-797-11	METAL CHIP	10	5%	1/10W
R542	1-216-797-11	METAL CHIP	10	5%	1/10W
R543	1-216-797-11	METAL CHIP	10	5%	1/10W
R544	1-216-797-11	METAL CHIP	10	5%	1/10W
R553	1-216-837-11	METAL CHIP	22K	5%	1/10W
⚠ R554	1-246-155-61	FUSIBLE	1	5%	1/4W F
⚠ R555	1-246-163-61	FUSIBLE	100	5%	1/4W F
⚠ R556	1-246-163-61	FUSIBLE	100	5%	1/4W F
R557	1-216-821-11	METAL CHIP	1K	5%	1/10W
R558	1-216-821-11	METAL CHIP	1K	5%	1/10W
R559	1-216-837-11	METAL CHIP	22K	5%	1/10W
R561	1-216-845-11	METAL CHIP	100K	5%	1/10W
R562	1-216-845-11	METAL CHIP	100K	5%	1/10W
R563	1-216-839-11	METAL CHIP	33K	5%	1/10W
R565	1-216-837-11	METAL CHIP	22K	5%	1/10W
R566	1-216-839-11	METAL CHIP	33K	5%	1/10W
R567	1-216-821-11	METAL CHIP	1K	5%	1/10W
R568	1-216-839-11	METAL CHIP	33K	5%	1/10W
R569	1-216-845-11	METAL CHIP	100K	5%	1/10W
		< RELAY >			
RY541	1-755-307-21	RELAY			
RY542	1-755-307-21	RELAY			
**********					
	1-687-669-12	SW BOARD			
		*********			
		< SWITCH >			
S751	1-786-514-11	SWITCH, LEVER (SLIDE)			(OPEN/CLOSE DETECT)
**********					

Ref. No.	Part No.	Description			Remark
		TC BOARD			
		*********			
		< CAPACITOR >			
C301	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C302	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C303	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C304	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C315	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C316	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C317	1-126-965-11	ELECT	22uF	20%	50V
C318	1-126-965-11	ELECT	22uF	20%	50V
C323	1-162-969-11	CERAMIC CHIP	0.0068uF	10%	25V
C324	1-162-969-11	CERAMIC CHIP	0.0068uF	10%	25V
C327	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C328	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C329	1-131-688-31	FILM	0.047uF	5%	50V
C330	1-131-688-31	FILM	0.047uF	5%	50V
C350	1-126-934-11	ELECT	220uF	20%	16V
C351	1-126-923-11	ELECT	220uF	20%	10V
C352	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C353	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C354	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C355	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C356	1-126-964-11	ELECT	10uF	20%	50V
C401	1-126-956-11	ELECT	0.1uF	20%	50V
C402	1-126-956-11	ELECT	0.1uF	20%	50V
C403	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C404	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C405	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C406	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C409	1-126-964-11	ELECT	10uF	20%	50V
C410	1-126-964-11	ELECT	10uF	20%	50V
C411	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C412	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C413	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C414	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C416	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C417	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C418	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C430	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C433	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C452	1-126-947-11	ELECT	47uF	20%	35V
C453	1-130-471-00	MYLAR	0.001uF	5%	50V
C454	1-130-481-00	MYLAR	0.0068uF	5%	50V
C456	1-130-483-00	MYLAR	0.01uF	5%	50V
C461	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C462	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C466	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
		< CONNECTOR >			
CN008	1-568-830-11	CONNECTOR, FFC 11P			
CN301	1-815-444-11	PIN, CONNECTOR (PWB) 3P			
CN302	1-815-449-11	PIN, CONNECTOR (PWB) 8P			
		< DIODE >			
D301	6-501-165-01	DIODE UDZW-TE17-4.3B			
D401	6-500-335-01	DIODE MC2838-T112-1			

TC

Ref. No.	Part No.	Description			Remark
		< IC >			
IC301	6-702-945-01	IC NJM14558V-TE2			
IC401	8-759-278-58	IC NJM4558V-TE2			
		< JUMPER RESISTOR >			
JR301	1-216-864-11	SHORT CHIP	0		
JR302	1-216-864-11	SHORT CHIP	0		
JR303	1-216-864-11	SHORT CHIP	0		
JR304	1-216-864-11	SHORT CHIP	0		
JR305	1-216-864-11	SHORT CHIP	0		
JR306	1-216-864-11	SHORT CHIP	0		
JR307	1-216-864-11	SHORT CHIP	0		
JR308	1-216-864-11	SHORT CHIP	0		
JR309	1-216-864-11	SHORT CHIP	0		
JR310	1-216-864-11	SHORT CHIP	0		
JR311	1-216-864-11	SHORT CHIP	0		
JR313	1-216-864-11	SHORT CHIP	0		
JR315	1-216-864-11	SHORT CHIP	0		
JR316	1-216-864-11	SHORT CHIP	0		
JR317	1-216-864-11	SHORT CHIP	0		
JR318	1-216-864-11	SHORT CHIP	0		
JR319	1-216-864-11	SHORT CHIP	0		
JR320	1-216-864-11	SHORT CHIP	0		
		< TRANSISTOR >			
Q301	6-551-597-01	FET 2SJ461-T			
Q302	6-551-597-01	FET 2SJ461-T			
Q303	8-729-045-62	FET 2SK2158-T2B			
Q304	8-729-045-62	FET 2SK2158-T2B			
Q305	6-551-696-01	TRANSISTOR ISA1235AC1TP-1EF			
Q306	6-551-696-01	TRANSISTOR ISA1235AC1TP-1EF			
Q401	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF			
Q402	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF			
Q403	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF			
Q404	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF			
Q405	6-551-696-01	TRANSISTOR ISA1235AC1TP-1EF			
Q406	6-551-696-01	TRANSISTOR ISA1235AC1TP-1EF			
Q407	6-551-696-01	TRANSISTOR ISA1235AC1TP-1EF			
Q408	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF			
Q409	8-729-027-43	TRANSISTOR DTC114EKA-T146			
Q410	6-551-276-01	TRANSISTOR RT1N431C-TP-1			
Q453	8-729-036-86	TRANSISTOR KTC3203Y-AT			
Q454	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF			
Q455	8-729-037-13	TRANSISTOR KTA1271Y			
		< RESISTOR >			
R301	1-216-841-11	METAL CHIP	47K	5%	1/10W
R302	1-216-841-11	METAL CHIP	47K	5%	1/10W
R303	1-216-841-11	METAL CHIP	47K	5%	1/10W
R304	1-216-841-11	METAL CHIP	47K	5%	1/10W
R305	1-216-849-11	METAL CHIP	220K	5%	1/10W
R306	1-216-849-11	METAL CHIP	220K	5%	1/10W
R307	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R308	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R309	1-216-817-11	METAL CHIP	470	5%	1/10W
R310	1-216-817-11	METAL CHIP	470	5%	1/10W
R311	1-216-813-11	METAL CHIP	220	5%	1/10W
R312	1-216-813-11	METAL CHIP	220	5%	1/10W
R313	1-216-805-11	METAL CHIP	47	5%	1/10W
R314	1-216-805-11	METAL CHIP	47	5%	1/10W

Ref. No.	Part No.	Description			Remark
R315	1-216-809-11	METAL CHIP	100	5%	1/10W
R316	1-216-809-11	METAL CHIP	100	5%	1/10W
R317	1-216-853-11	METAL CHIP	470K	5%	1/10W
R318	1-216-853-11	METAL CHIP	470K	5%	1/10W
R319	1-216-835-11	METAL CHIP	15K	5%	1/10W
R320	1-216-835-11	METAL CHIP	15K	5%	1/10W
R321	1-216-809-11	METAL CHIP	100	5%	1/10W
R322	1-216-809-11	METAL CHIP	100	5%	1/10W
R323	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R324	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R325	1-216-809-11	METAL CHIP	100	5%	1/10W
R326	1-216-809-11	METAL CHIP	100	5%	1/10W
R349	1-216-809-11	METAL CHIP	100	5%	1/10W
R350	1-216-864-11	SHORT CHIP	0		
R351	1-216-821-11	METAL CHIP	1K	5%	1/10W
R401	1-216-841-11	METAL CHIP	47K	5%	1/10W
R402	1-216-841-11	METAL CHIP	47K	5%	1/10W
R403	1-216-839-11	METAL CHIP	33K	5%	1/10W
R404	1-216-839-11	METAL CHIP	33K	5%	1/10W
R405	1-216-842-11	METAL CHIP	56K	5%	1/10W
R406	1-216-842-11	METAL CHIP	56K	5%	1/10W
R407	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R408	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R411	1-216-853-11	METAL CHIP	470K	5%	1/10W
R412	1-216-853-11	METAL CHIP	470K	5%	1/10W
R413	1-216-849-11	METAL CHIP	220K	5%	1/10W
R414	1-216-849-11	METAL CHIP	220K	5%	1/10W
R423	1-216-847-11	METAL CHIP	150K	5%	1/10W
R424	1-216-847-11	METAL CHIP	150K	5%	1/10W
R427	1-216-797-11	METAL CHIP	10	5%	1/10W
R428	1-216-797-11	METAL CHIP	10	5%	1/10W
R429	1-216-833-11	METAL CHIP	10K	5%	1/10W
R430	1-216-833-11	METAL CHIP	10K	5%	1/10W
R431	1-216-821-11	METAL CHIP	1K	5%	1/10W
R432	1-216-821-11	METAL CHIP	1K	5%	1/10W
R433	1-216-841-11	METAL CHIP	47K	5%	1/10W
R434	1-216-841-11	METAL CHIP	47K	5%	1/10W
R435	1-216-833-11	METAL CHIP	10K	5%	1/10W
R436	1-216-833-11	METAL CHIP	10K	5%	1/10W
R437	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R438	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R440	1-216-833-11	METAL CHIP	10K	5%	1/10W
R441	1-216-864-11	SHORT CHIP	0		
R442	1-216-841-11	METAL CHIP	47K	5%	1/10W
R443	1-216-845-11	METAL CHIP	100K	5%	1/10W
R444	1-216-833-11	METAL CHIP	10K	5%	1/10W
R449	1-216-793-11	METAL CHIP	4.7	5%	1/10W
R450	1-216-864-11	SHORT CHIP	0		
R451	1-216-833-11	METAL CHIP	10K	5%	1/10W
R452	1-216-841-11	METAL CHIP	47K	5%	1/10W
R453	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R454	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R455	1-216-797-11	METAL CHIP	10	5%	1/10W
R456	1-216-864-11	SHORT CHIP	0		
R457	1-216-835-11	METAL CHIP	15K	5%	1/10W
R458	1-216-793-11	METAL CHIP	4.7	5%	1/10W
R459	1-216-864-11	SHORT CHIP	0		
R461	1-216-813-11	METAL CHIP	220	5%	1/10W
R462	1-216-813-11	METAL CHIP	220	5%	1/10W
R463	1-216-864-11	SHORT CHIP	0		

Ref. No.	Part No.	Description			Remark
R464	1-216-864-11	SHORT CHIP	0		
R481	1-216-833-11	METAL CHIP	10K	5%	1/10W
R482	1-216-841-11	METAL CHIP	47K	5%	1/10W
R483	1-216-864-11	SHORT CHIP	0		
R484	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R486	1-216-864-11	SHORT CHIP	0		
R487	1-216-864-11	SHORT CHIP	0		
		< TRANSFORMER >			
T001	1-443-760-11	TRANSFORMER, BIAS OSCILLATION			
**********					
		TRANS BOARD			
		**********			
	1-533-217-41	HOLDER, FUSE			
		< CAPACITOR >			
C905	1-136-165-00	FILM	0.1uF	5%	50V
C906	1-136-165-00	FILM	0.1uF	5%	50V
C907	1-136-497-81	FILM	0.1uF	5%	50V
C908	1-128-553-11	ELECT	220uF	20%	63V
C909	1-126-964-11	ELECT	10uF	20%	50V
C910	1-126-968-11	ELECT	100uF	20%	50V
C911	1-126-942-61	ELECT	1000uF	20%	25V
C914	1-126-962-11	ELECT	3.3uF	20%	50V (GZR7D/GZR9D)
C914	1-126-963-11	ELECT	4.7uF	20%	50V (GZR8D)
		< CONNECTOR >			
* CN907	1-764-334-11	PLUG, CONNECTOR 11P			
		< DIODE >			
D902	6-500-522-21	DIODE 10EDB40-TB3			
D903	6-500-522-21	DIODE 10EDB40-TB3			
D904	6-500-522-21	DIODE 10EDB40-TB3			
D905	6-500-522-21	DIODE 10EDB40-TB3			
D906	6-501-792-01	DIODE MAZ8300GMLS0			
D907	6-502-467-01	DIODE D20XB80-LF7003			
D908	6-500-522-21	DIODE 10EDB40-TB3			
D910	6-500-335-01	DIODE MC2838-T112-1			
D911	6-500-522-21	DIODE 10EDB40-TB3 (GZR9D)			
		< TRANSISTOR >			
Q902	8-729-048-66	TRANSISTOR 2SB1238-PQR-TV2			
Q903	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF			
		< RESISTOR >			
R903	1-216-833-11	METAL CHIP	10K	5%	1/10W
R904	1-216-821-11	METAL CHIP	1K	5%	1/10W
⚠ R908	1-246-155-61	FUSIBLE	1	5%	1/4W F
R912	1-216-837-11	METAL CHIP	22K	5%	1/10W
R913	1-216-841-11	METAL CHIP	47K	5%	1/10W
R914	1-216-832-11	METAL CHIP	8.2K	5%	1/10W
R915	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
**********					

Ref. No.	Part No.	Description			Remark
		USB BOARD			
		**********			
		< CAPACITOR >			
C802	1-126-176-11	ELECT	220uF	20%	10V
C803	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
		< CONNECTOR >			
CN804	1-819-866-11	CONNECTOR, USB (A) 4P (USB)			
		< DIODE >			
D801	8-719-083-57	DIODE UDZSNPTE-173.6B			
D802	8-719-083-57	DIODE UDZSNPTE-173.6B			
D803	6-502-315-01	LED 1L544GB12E0CKTZ1			(USB ILLUMINATOR (BLUE))
D804	6-502-315-01	LED 1L544GB12E0CKTZ1			(USB ILLUMINATOR (BLUE))
D805	6-501-691-01	LED 1L434FV22D0TDF01			(USB ILLUMINATOR (RED))
D806	6-501-691-01	LED 1L434FV22D0TDF01			(USB ILLUMINATOR (RED))
D807	8-719-058-24	DIODE RB501V-40TE-17			
D808	8-719-058-24	DIODE RB501V-40TE-17			
		< JUMPER RESISTOR >			
JR852	1-216-864-11	SHORT CHIP	0		
JR853	1-216-864-11	SHORT CHIP	0		
		< RESISTOR >			
R801	1-216-813-11	METAL CHIP	220	5%	1/10W
R802	1-216-813-11	METAL CHIP	220	5%	1/10W
R803	1-216-817-11	METAL CHIP	470	5%	1/10W
R804	1-216-817-11	METAL CHIP	470	5%	1/10W
R805	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R806	1-216-789-11	METAL CHIP	2.2	5%	1/10W
**********					
		VIDEO BOARD			
		**********			
		< CAPACITOR >			
C902	1-126-960-11	ELECT	1uF	20%	50V
C903	1-126-960-11	ELECT	1uF	20%	50V
C904	1-126-960-11	ELECT	1uF	20%	50V
C905	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C906	1-126-965-11	ELECT	22uF	20%	50V
C907	1-126-960-11	ELECT	1uF	20%	50V
C908	1-126-960-11	ELECT	1uF	20%	50V
C909	1-126-960-11	ELECT	1uF	20%	50V
C910	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C911	1-104-658-11	ELECT	100uF	20%	10V
C912	1-126-956-11	ELECT	0.1uF	20%	50V
C914	1-126-916-11	ELECT	1000uF	20%	6.3V
C915	1-126-916-11	ELECT	1000uF	20%	6.3V
C916	1-126-916-11	ELECT	1000uF	20%	6.3V
C917	1-126-916-11	ELECT	1000uF	20%	6.3V
C918	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C919	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C920	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C921	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C923	1-162-919-11	CERAMIC CHIP	22PF	5%	50V

VIDEO **VOLUME**

Ref. No.	Part No.	Description			Remark
C924	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C926	1-126-960-11	ELECT	1uF	20%	50V
C927	1-126-960-11	ELECT	1uF	20%	50V
C928	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C929	1-126-933-11	ELECT	100uF	20%	16V
C930	1-126-916-11	ELECT	1000uF	20%	6.3V
		< CONNECTOR >			
CN901	1-779-283-11	CONNECTOR, FFC (LIF(NON-ZIF)) 15P			
CN903	1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P			
		< JUMPER RESISTOR >			
FB901	1-216-864-11	SHORT CHIP	0		
FB902	1-216-864-11	SHORT CHIP	0		
FB903	1-216-864-11	SHORT CHIP	0		
FB904	1-216-864-11	SHORT CHIP	0		
FB906	1-216-864-11	SHORT CHIP	0		
FB907	1-216-864-11	SHORT CHIP	0		
FB908	1-216-864-11	SHORT CHIP	0		
		< IC >			
IC901	6-710-470-01	IC MM1758AFBE			
IC902	6-703-622-01	IC MM1508XNRE			
		< JACK >			
J901	1-793-483-11	JACK, PHONO 3P (COMPONENT VIDEO OUT)			
J902	1-785-867-11	JACK, PIN 1P (VIDEO OUT)			
J903	1-785-867-11	JACK, PIN 1P (VIDEO/SAT (VIDEO IN))			
		< CONNECTOR >			
J904	1-784-248-11	CONNECTOR (ROUND TYPE) 5P (S VIDEO OUT)			
		< JUMPER RESISTOR >			
JR901	1-216-864-11	SHORT CHIP	0		
JR902	1-216-864-11	SHORT CHIP	0		
		< COIL >			
L901	1-412-058-11	INDUCTOR	10uH		
		< RESISTOR >			
R901	1-216-809-11	METAL CHIP	100	5%	1/10W
R902	1-216-809-11	METAL CHIP	100	5%	1/10W
R903	1-216-833-11	METAL CHIP	10K	5%	1/10W
R904	1-218-285-11	METAL CHIP	75	5%	1/10W
R905	1-218-285-11	METAL CHIP	75	5%	1/10W
R906	1-218-285-11	METAL CHIP	75	5%	1/10W
R907	1-218-285-11	METAL CHIP	75	5%	1/10W
R909	1-218-285-11	METAL CHIP	75	5%	1/10W
R910	1-218-285-11	METAL CHIP	75	5%	1/10W
R911	1-216-833-11	METAL CHIP	10K	5%	1/10W
R912	1-216-809-11	METAL CHIP	100	5%	1/10W
R913	1-218-285-11	METAL CHIP	75	5%	1/10W
R914	1-218-285-11	METAL CHIP	75	5%	1/10W
R915	1-218-285-11	METAL CHIP	75	5%	1/10W

****

Ref. No.	Part No.	Description			Remark
		VOLUME BOARD			
		**********			
		< CAPACITOR >			
C651	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C652	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
		< RESISTOR >			
R615	1-216-833-11	METAL CHIP	10K	5%	1/10W
R767	1-216-845-11	METAL CHIP	100K	5%	1/10W
R768	1-216-841-11	METAL CHIP	47K	5%	1/10W
R769	1-216-837-11	METAL CHIP	22K	5%	1/10W
R770	1-216-837-11	METAL CHIP	22K	5%	1/10W
		< SWITCH >			
S615	1-786-289-11	SWITCH, DETECTION (OPERATION DIAL ⏮ –/+ ⏭)			
S651	1-480-109-11	ENCODER, ROTARY (MASTER VOLUME)			

****

Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS **********	
62	1-417-657-13	MECHA DECK	
63	1-831-928-21	CABLE, FLEXIBLE FLAT (11 CORE)	
116	1-500-933-11	CORE, FERRITE	
118	1-832-916-21	CABLE, FLEXIBLE FLAT (29 CORE)	
* 152	1-400-052-11	FILTER, CLAMP (FERRITE CORE) (AUS)	
201	1-832-053-21	CABLE, FLEXIBLE FLAT (9 CORE)	
202	1-831-786-21	CABLE, FLEXIBLE FLAT (13 CORE)	
206	1-832-434-21	CABLE, FLEXIBLE FLAT (11 CORE)	
⚠ 212	1-569-008-22	ADAPTOR, CONVERSION 2P (E2,E3,E15,PH,SP)	
⚠ 213	1-834-288-21	POWER-SUPPLY CORD (TH)	
⚠ 213	1-834-966-11	CORD, POWER (EXCEPT TH,AUS)	
⚠ 213	1-834-967-11	CORD, POWER (AUS)	
251	1-481-362-11	CORE, FERRITE	
253	1-832-620-21	CABLE, FLEXIBLE FLAT (21 CORE)	(GZR8D/GZR9D)
253	1-832-630-21	CABLE, FLEXIBLE FLAT (23 CORE) (GZR7D)	
257	1-832-589-21	CABLE, FLEXIBLE FLAT (15 CORE)	
302	1-776-182-11	WIRE (FLAT TYPE) (5 CORE)	
370	1-828-252-51	CABLE, FLEXIBLE FLAT (24 CORE)	
⚠ 371	8-820-322-04	OPTICAL PICK-UP (KHM-313CAB/C2RP)	
⚠ F904	1-532-506-33	FUSE (T6.3AL/250V) (GZR7D)	
⚠ F904	1-533-949-33	FUSE, CYLINDRICAL (TIME LAG)	(T8AL/250V) (GZR8D)
⚠ F904	1-576-332-33	FUSE, CYLINDRICAL (TIME LAG)	(T10AL/250V) (GZR9D)
⚠ F905	1-532-506-33	FUSE (T6.3AL/250V) (GZR7D)	
⚠ F905	1-533-949-33	FUSE, CYLINDRICAL (TIME LAG)	(T8AL/250V) (GZR8D)
⚠ F905	1-576-332-33	FUSE, CYLINDRICAL (TIME LAG)	(T10AL/250V) (GZR9D)
⚠ F906	1-532-505-33	FUSE (T5AL/250V)	
⚠ F907	1-532-465-33	FUSE (T3.15AL/250V)	
⚠ F908	1-533-949-33	FUSE, CYLINDRICAL (TIME LAG)	(T8AL/250V) (GZR7D/GZR8D)
⚠ F908	1-576-332-33	FUSE, CYLINDRICAL (TIME LAG)	(T10AL/250V) (GZR9D)
⚠ F909	1-533-949-33	FUSE, CYLINDRICAL (TIME LAG)	(T8AL/250V) (GZR7D/GZR8D)
⚠ F909	1-576-332-33	FUSE, CYLINDRICAL (TIME LAG)	(T10AL/250V) (GZR9D)
FAN901	1-787-400-11	D.C. FAN (GZR7D)	
FAN901	1-787-400-31	FAN (DC) (GZR8D/GZR9D)	
FAN902	1-787-400-21	FAN (DC) (GZR8D/GZR9D)	
FC901	1-481-419-11	CORE, FERRITE	
M741	A-1108-965-A	MOTOR ASSY, TABLE (TABLE)	
M751	A-1108-966-A	MOTOR ASSY, LOADING (LOADING)	
⚠ PT901	1-445-398-11	TRANSFORMER, POWER (MAIN) (GZR9D)	
⚠ PT901	1-445-400-11	TRANSFORMER, POWER (MAIN) (GZR7D)	
⚠ PT901	1-445-405-11	TRANSFORMER, POWER (MAIN) (GZR8D)	
RE701	1-477-680-12	ENCODER, ROTARY	(DISC TRAY ADDRESS DETECT)
TM901	1-693-761-11	TUNER (FM/AM) (ANTENNA)	

REVISION HISTORY

Checking the version allows you to jump to the revised page.
Also, clicking the version at the top of the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.0	2008.05	New